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Adventures *in* Wales.

On wandering through the village of Llandilo Vauhr, which the natives dignify by the name of a town, it was our good fortune to espy a small tent exposed to sale. We could not resist the temptation of purchasing it, and with the dexterity of jugglers, lightened the well-stocked purse of our travelling companion, Shenkin ap Morgan. Well, the tent was bought, and luckily paid for. What next was to be done? A council of war was held at our cottage; and over a bottle of Welch ale, in the evening, we agreed, with one accord, to turn it to immediate advantage in our next excursion. No sooner said than done. There are some folks who deliberate before they act: we act before we deliberate; and in most cases of exhortation or strife, it is with us, as with the irritable, the word and the blow, and the blow first.

After much dispute, the 12th July was appointed for our excursion to Clynn y Van, or the pool among the Black Mountains. The previous time was spent in necessary preparations. Shenkin wrought wonders in the way of tackle-mending, and more than once extorted our praise by his mode of manufacturing a fly. After all, Welchmen can do something! The kitchen, meanwhile, kept pace with the general activity. The pot bellowed with the indignant hisses of incarcerated chickens, the oven seemed pleased with its contents, the shelves in the larder bent in graceful acknowledgment of their load, and the womankind were up to their ancles in the blood of massacred poultry.

The day at length arrived—"the great, the important day, big with the fate of"—us and of the trout. We rose, as agreed on, by peep of dawn, and even now blush while we remember the difficulty. Morgan's unfortunate propensity to sleep compelled us to call in the assistance of cold water; and the snore of Robert Rapid announced the intensity of his devotion to Morpheus. Our procession was at last arranged, and the Welchman was the most humorous part of it. He was dressed in a pair of picturesque brogues, "*par nobile fratrum*," that reached only to his knees, and after the fashion of his ancestors who, as he informed us, had worn wigs for thousands of years, arrayed himself in a caxon of episcopal dimensions. Robert was rigged out pretty much in the usual way, and your humble servant, with the exception of a fishing-jacket, looked somewhat like an author on short commons, a servant on board-wages, or an officer on half-pay. The tent was carried on the shoulders of an alternate couple of the party, and a Welch poney brought up the rear with a hamper of provisions.

At a slight distance from the cottage we commenced our ascent of the first range of hills, and on gaining the summit, round which the path winds to Clynn y Van, stopped for an instant to survey the rising sun. But while we were wrapt in extacy at the sight, Morgan was pulling hard at the brandy flask, insensible to the spirit of the universe, and alive only to the spirit of the brandy. We reprimanded him for his want of taste, but he assured us that it was in order to improve his taste that he fortified his stomach with a cordial. After a toilsome march of three hours, "over mountain, over moor, over flood, and over fell," we contrived to have a peep at Clynn y Van, with the clouds resting on its bosom. The sight renewed our strength, and we were at last rewarded for our exertions by gaining the loftiest peak. A most magnificent landscape presented itself below us. On every side rose a huge chaos of mountains, with vallies reposing between them. At the base of Clynn y Van the spire of the village church peeped forth from its coverlid of wood, surrounded with the white cottages of the turf-cutters. Rushing in cataracts from the mountains, numerous brooks took their way into a lake about a mile distant from the village, and flashed forth a thousand colours in the sun-beam. Higher up on

the eminences the smiling appearance of the low-lands vanished, and all was barren and desolate. A wide heath, rendered impassable in part by bogs, afforded provision for the sheep that browzed upon the mountains, and produced only a few stinted thistles. The wind whistled around us, bearing on its wing the distant cries of the black cock, or the sullen rush of the heath bird, the sole tenants of the waste.

When we had sufficiently enjoyed the landscape we descended a circuitous path, which brought us into a sort of valley belted by an amphitheatre of mountains, many of which rose perpendicularly from the pool in the centre of the plain. The sun shone bright on the waters—the fish leaped up with joy—our hearts leaped within us at the sight—and a gale, moderated by the shelter of the adjacent hills, slightly ruffled the stream. Our tent was immediately erected in a spot where a cleft in the mountains afforded a glance of the landscape beneath; and our accommodations were in every respect desirable. We had mantles for the convenience of sleeping, materials for striking light, gridirons to fry fish if caught, and cheerfulness to enjoy the excursion. But, alas! sorrow treads hard on the heels of happiness. "All things," as the Psalmist observes, "are vanity and vexation of spirit;" and poor Shenkin was compelled to acknowledge this bitter truth in the loss of his Welch wig. A zephyr, it appears, was travelling by at the time, and being taken with the beauty of the caxon, stole it from the head of its owner. A hue and cry was instantly raised, emissaries were despatched on the chase, but the thief was the swiftest of the party, and puffed it like a balloon beyond our reach. The discomfited Cambrian entertained us, on our return, with an account of the age and virtues of his wig, and informed us that he would not have lost it for a hundred pounds, for that it had been in the family for thousands of years, and belonged originally to Josiah the son of Aminadab, who bequeathed it to one of the Elders of the Ten Tribes, by whom it was transmitted to the ancestors of Llewellyn, who gave it, at his death, to Shenkin-ap-Rhyader-ap-Morgan-ap-Jenkins-ap-Jones, and through whom it had descended to the present owner. "Judge, oh ye gods! how dearly Morgan lov'd it." With some difficulty we pacified him, and tied a handkerchief round his bald head, which, thus accoutered, gave no faint idea of a turnip enveloped in a dish-clout.

The sun had by this time attained his meridian, and we resolved to commence an assault on the provisions. Morgan led the way to the attack, and skirmished gallantly among the baskets. We too seated ourselves by the tent side, and paid repeated compliments to each other's faculties of mastication. As for Robert, he digested our jokes with as much good humour as his dinner, and amused us by his unwearied sprightliness. How long we continued at our repast it is impossible now to say, but certain it is, that the sun was on the wane, when we took up the fragments that remained. Our rods were forthwith got ready, and away we hurried to the pool: but the intensity of the heat prevented our usual activity, and we moved languidly along the banks until roused by a shout from Taffy, who had hooked an enormous trout. The fish struggled with the energy of despair, but the wary Cambrian refused to remit his advantage. He played him with infinite dexterity, gave him a full swing of line, and having fatigued him with pain, drew him safely to land. It may here be proper to observe, that we saw the epicure Robert lick his lips at sight of the trout, and handle his well-fed back, as if, like an avaricious clergyman, he was fingering the tythes of the parish. While thus absorbed in fly-fishing, the clouds thickened, the day was overcast, and the lurid appearance of the atmosphere announced the approach of a storm. We heard the thunder echoing in sullen peals from the distance, and grow louder and louder as it approached. At last it burst full on our heads. Each roll reverberated in ten thousand echoes among the mountains, and inspired us with unusual solemnity. Even Robert was serious, and Morgan forgot his wig. The lightning meantime flashed terrifically around; the wind rose—fell—and stillness again brooded over the face of the landscape. During the continuance of the storm we retired into our tent, where we amused ourselves by tying flies, and preparing fire for our trout. Morgan was dubbed cook, Robert ordained his ministrant, and I was despatched to cut turf to feed the flames. In the course of our pursuit, we lighted by chance on a bog-cutter who was engaged in a similar occupation. Like the generality of his countrymen, he was a timid superstitious sort of fellow, and seemed to be frightened

ened out of his wits at the tempest. To quiet his agitation we brought him to our tent, and having replenished his exhausted courage with a dram, listened attentively to his wild legends of Clynn y Van and the adjacent ruins of Castle Dynevor. It is in the season of horror that the feelings are most alive. The common-place man by day, may become romantic at night; and in a situation to elicit the dormant faculties of the soul, poetry may spring from the lips of even a merchant. The legends of this simple Welch herdsman were told with a dreadful earnestness; we say dreadful, because none but those who listened can have an idea of the energy of his detail, excited as his feelings had been by the tempest, which even now roared gloomily in the distance. The following is a faint sketch of the popular tradition of the White Lady, the very mention of whose name is enough to petrify a Welchman with horror. Our party was grouped round the fire while the peasant related it; and as the flames played on his countenance, quivering with the varied emotions of his narrative, they communicated an expression of fear that we have never since seen equalled.

"Many centuries ago, an ancestor of the Dynevor family, who were at that time the owners of the immense tracts in the neighbourhood of Clynn y Van, formed an attachment to a young peasant girl. He was a determined libertine, and spared no pains to accomplish his intentions. Chance favoured him. He was sauntering one evening by the pool side, when the object of his enamoured fancy passed him in her way to the neighbouring village. The situation was lonely—the evening dark—the peasants had long since quitted the fields, and the tinkling of the distant sheep-bell was the only sound that broke the stillness of the hour. The nobleman marked his opportunity. He approached his victim, and in the height of phrenzy blasted her character for ever. She survived her disgrace but a short time, and drowned herself in the pool beside whose banks she was undone. Her seducer returns to the metropolis, and from the haunts of dissipation brought down with him a gay assemblage of fashion. Balls, tournaments, succeeded each other in rotation; and one day, a party was proposed to Clynn y Van. The day of amusement arrived—it was the same day that had witnessed the scene of violence. Towards evening, when the tents were pitched for the dance, the lord of the feast was observed to be impressed with unusual melancholy. He wandered thoughtful along the banks of the lake, and remembered the woman whom he had murdered. The village clock struck nine. It had struck the same fatal hour when last he was there with his victim. Suddenly the pool became agitated—a cloud hovered on its surface—from the midst of which rose a female form, arrayed in milk-white garments. It held an hour glass in its hand, and pointed to the affrighted nobleman. The sand slowly ebbed away, and the spectre, as if anxious to hasten its decrease, shook it in her skeleton hand. Ten o'clock struck, the moon became suddenly overcast, and the last grains of sand disappeared. A deep groan was heard on the instant. The party rushed to the spot. The nobleman was dead. From that period, on a certain day and hour in the year the water bubbles up with foam, and the White Lady is seen to rise from the surface, screaming with the hollow lungs of death—"The clock has struck—the knell is tolled—the priest is at the altar—the victim in his grave."

The turf-cutter concluded his legend, and infinite was the consternation of the party. Robert looked around as if afraid of the visit of a ghost, and espying a hole in the tent, enquired of the trembling peasant, if it was large enough to admit a goblin. He was answered in the affirmative; and without more ado applied himself briskly to mend it. As for poor Morgan, he sat fearfully in the corner, sipping diluted brandy, and brushing up the embers of the fire. The storm had now subsided, and nature was again at rest. It was deep midnight; the peasant seemed anxious to remain, and in order to pass away the time we finished our trout for supper. Robert, in the interim, who had once served in the army, proposed that we should mount alternate guard without our tent. A difficulty now arose, who should take the first watch during the coldest part of the night. To settle the dispute we agreed to cast lots, and having luckily a piece of Goethe's Wilhelm Meister, with the major part of which we had lighted our segars, being the only light that the book had ever thrown upon a subject, we tore it into three divisions. The soldier was unsuccessful in his lot, and buckling himself up in his mantle, with a pipe in his mouth, and a cudgel by his side, paraded without the tent. Meanwhile (thanks to the brandy) we

recovered in part from our consternation, and with some difficulty the turf-cutter was induced to treat us with another legend.

"On the conclusion of the holy war, the founder of the house of Dynevor (who, by the bye, are godfathers to all the legends of the country) returned to his estate in Wales. Many surmises were circulated to his prejudice, and it was even affirmed that he had murdered his brother to gain possession of the title. His deportment, which strengthened the reports, was tinctured with deep gloom. He secluded himself by day, and at night, when the household had retired to rest, strange noises were heard, proceeding, as it appeared, from his apartment. His sole amusement was hunting, in the pursuit of which he would absent himself for weeks from home. Engaged one day in his favourite occupation, accident brought him to Clynn y Van: night was approaching, and being spent with fatigue, he tied his horse to a tree, and retired to rest in a cavern beside the pool. At midnight he awoke. The moon was up, and he discovered that he had been sleeping on a damp grave, while skulls and mouldering bones lay strewed in all directions around him. He rushed from the recess—a cold chill came over him—it was the slime that earthworms had left upon his face. At the mouth of the cave, a figure arrayed in black opposed him. He enquired the way home, and the stranger beckoned him with his hand to follow. On reaching his gate, he turned to thank the guide, when the fleshless skeleton of his brother stood before him. The fratricide lived for years afterwards; but every night when the castle clock was on the stroke of twelve, a heavy footstep was heard pacing along the corridors, and the spirit of the murdered would appear before the eyes of its guilty kinsman. He, too, is long since numbered with the dead, but the spectre has been heard at times to shout from the cavern where he was slain, as if justice was still withheld."

It was now our turn to watch, and accordingly we prepared for the enterprize. The thunder-storm had long since ceased—the breeze was lulled, and the moon shone down in unclouded brilliance. The night was ineffably delicious, and the spirit of benevolence seemed abroad on the wings of the wind. Before us lay the legendary pool of Clynn y Van, slumbering in the moonlight, like beauty on the lap of innocence; and to the right appeared the sepulchral cavern overrun with wild shrubs, and frowning in dreary horror. The naked crags that surrounded us on every side, resounded with the distant roar of mountain cataracts; and the villages beneath were tipped with the silver of the moon-beam that softened the more rugged features of the landscape. It was an hour for meditation, and we felt its influence. The past rushed on our minds, with a long train of departed remembrances. We thought of the friends who were dead—of those who were far away—and felt that we might never meet again. We looked up to heaven;—the stars shone bright—white fleecy clouds sailed across the deep blue of ether; we breathed more freely at the sight, we took cheerfulness unto our souls, as a handmaid, and felt that we were born heirs to a better world than this. In the course of our contemplation, the time appointed for our watch had expired, and with no little vivacity we resigned the post of honour to Morgan, while we renewed our chat with the turf-cutter, who had been enjoying a sound nap on the mantles which were spread beneath the tent. After a short interval, a sullen sound was heard. Robert instinctively grasped his cudgel—the peasant anathematized the "White Lady," and out we all rushed in disorder. There we found Morgan in a deep snore, with a check handkerchief tied under his chin, and his arms hanging idly by his side. A court martial was immediately held; the articles of war were conned over, and the culprit was condemned to a—bumper of salt and water. In vain he implored our clemency—in vain he told us that his dozing was the effect of eating trout from the inchanted pool, a recollection which alarmed his countryman, who did penance for every mouthful he had eaten. Equally vain was his resistance, although, in order to touch our feelings, he informed us that his great great grandfather Shenkin-ap-Rhyader-ap-Morgan-ap-Jenkins-ap-Jones, had appeared to him in his sleep—had taxed him with the loss of the family wig, and had promised to bring a whole legion of ancestors to haunt him, until the precious relic was found. We continued as inexorable as fate; the saline draught was prepared, swallowed, and our vengeance was appeased.

Daylight was now breaking in, and the turf-cutter, who had acquired cou-

rage

rage with peep of dawn, left us with many thanks to resume his labour. Our tackle was once again in requisition, we quitted our tent, and hastened to the banks of the pool. Robert was the most successful of us all, he depopulated the White Lady's dominions with incredible dispatch, for which Morgan hinted that he would be damned. As for ourselves, we took up an odd volume of Shakespear, and had just contrived to fall in love with honest Jack Falstaff, when the soldier made his appearance with a decent hamper of trout, while the Welchman licked his lips in the rear. A unanimous call for breakfast now summoned us to the tent, and we had scarcely despatched our repast, when the camp was struck—the poney saddled—the procession formed, and off we moved, singing, as we quitted Clynn y Van, the plaintive Irish melody, "Farewell! but whenever you welcome the hour."

Our walk home was delightful, and heightened by a recollection of the happiness we had enjoyed. Once or twice we could not help looking back at the magnificent mountains we were leaving, and almost envied the fate of Mrs. Lot, who hardened to a pillar of salt with her face turned towards the dear country she was quitting for ever. On reaching the base of the mountains, a singular spectacle presented itself. It was an old woman riding to the neighbouring market-town of Llangadock with a singular covering on her head. Morgan beheld her—and thought he recognized on her pericranium the apparition of his stray caxon. He walked—he leaped—he jumped towards her, seized the lost sheep, and bore it in triumph to the party. The fact is, it had been blown among some furze at the foot of the Black Mountains, where it was captured by the elderly gentlewoman as the lawful spoils of war. Our little Taffy was once again the merriest of the merry; and informed us a few days afterwards that his ancestor Shenkin-ap-Rhyader-ap-Morgan-ap-Jenkins-ap-Jones had appeared to him again in his sleep, thanked him kindly for the recovery of the wig, and promised never again to play the devil with him.

To the Editor of the Monthly Magazine.

SIR,

I HAVE just been spending a most agreeable half-hour in viewing an elegant and varied assemblage of ornaments, fabricated by the simplest, yet most beautiful chemical process—the crystalization of alum: the whole being the result of a few spare hours of patient industry in regulating the steps of this simple process, so as to cause the aluminous deposit to affix itself to almost any desired object or form.

I do not claim to myself the original principle of this pleasing invention, which I believe has been chiefly confined to the fabrication of flower-baskets for chimney ornaments among the more amiable sex, and the enchasement with an artificial crystal of busts, &c., by the *idlers* of our own: But as the result of my own experience and consequent gratification, I am induced to offer some observations which I am persuaded may contribute in some degree to the pleasure of others (more especially to the lovers of botany and other branches of natural history), as relates to the more extensive application of aluminous crystalization.

The steps of the operation are these:—Dissolve eighteen ounces of pure alum in a quart, beer measure, of soft spring water (observing the same proportion for a greater or less quantity) by boiling it gently in a close tinned vessel over a moderate fire, keeping it stirred with a wooden spatula until the solution is complete. When the liquid is almost cold, suspend the subject to be crystalized, by means of a fine thread or twine, from a lath or small stick laid horizontally across the aperture of a deep glazed earthen jar, into which the solution should now be poured, as being best adapted to the process. The respective articles should remain in the solution about twenty-four hours; when they are taken out, they are again to be carefully suspended in the shade until perfectly dry. The whole process of crystalization is best conducted in a cool situation. When the subjects to be crystalized are put into the solution while it is quite cold, the crystals are apt to be formed too large; on the other hand, should it be too hot, the crystals will be small in proportion. Experiments have convinced me that the best temperature of the liquid is about 95° of Fahrenheit's thermometer.

I shall subjoin a list of the subjects which are admirably adapted to the purpose I have mentioned, all of which I have succeeded in bringing to a most beautiful state of crystalization by the above method.

Among

Among the vegetable specimens, are the common moss-rose of the gardens; the protuberance or *bur* found on the wild rose, *rosa canina*, occasioned by an insect depositing its ova thereon—this should be plucked with its foot-stalk and a few of the leaves—small bunches of hops, ears of corn, especially millet-seed, and the bearded wheat, berries of the holly, fruit of the sloe bush, the hyacinth, pink, furze blossom, ranunculus, garden daisy, and a great variety of others: in fact there are but few subjects in the vegetable world that are not eligible to this mode of preservation. In the animal kingdom, the lizard, large spider, grasshopper, all the beetle kind, the nests of small birds, with their eggs, forming most beautiful specimens, when neatly secured in portions of the branches of the tree, &c., in which they are accustomed to resort. A considerable degree of attention is requisite to prevent too great a deposit of the alum on some of the above-mentioned subjects, by which their beauty would be obscured; they ought therefore to be frequently inspected while crystalization is going on, and removed as soon as it can be ascertained that they have acquired a sufficient coating. Various articles of turnery, &c., intended as chimney ornaments, in almost every diversity of form, if first carefully covered over with common cotton, wound round them, may be submitted to crystalization, with the same beautiful result.

W. H. Weekes.

Sandwich, Aug. 10, 1824.

P.S. If desirable, the crystalized subjects may be tinged with almost any variety of colour, by boiling in the alum solution a little indigo, Brazil log-wood, French berries, or other vegetable and mineral dyes. A little care and ingenuity will likewise enable the operator to confine his tints to the crystal surrounding flower blossoms, and other particular parts of plants which he may wish to preserve. Among the vegetable tribe, the class of lichens, especially the *cup-moss*, are most eligible subjects, nor are many specimens of fungi less adapted; the two latter tribes of vegetables have moreover the advantage of permanently retaining their native colours, without any aid whatever from art. A thin coating of the crystalizing matter only should be allowed to obtain on most individuals of the *cryptogamia*, which is adequate to their preservation, and much more essential to the beauty of the specimens.

THE YSSAOOIS.

[Extract from a letter from M. Delaporte, French Vice-Consul at Tangiers, to M. de Sacy, dated 3d Sept. 1823. [*Journal Asiatique.*]

THE Yssaoois form here a species of congregation, the members of which are spread over all Africa, and even extend to Asia. I have found them in all my journeys, wherever there are serpents, scorpions, or other noxious animals. They replace the ancient Psylli. The chief of the order resides at the Quinez, and the brotherhood draw their name, not from *Yssa*, Jesus, son of Mary, but from an African named *Yssa*, or *Seid-ben-Yssa*, its founder. The Yssaoois enchant serpents, take scorpions into their hands, and suck the poison of these animals. They enter into extacies, by dint of repeating what they call *Jadaba iagdoob*, the name of God, with a howling voice, making great and frequent contortions, and going to the right and left, backwards and forwards. In their extacy they foam, turn of a purple colour, and lose, or seem to lose, their senses. They have however prudence enough to spare their fellows, and especially the soldiers, who attend them in the different processions they hold at different times of the year, commonly during the feasts of Ramadhan, the sacrifice, and the Mohammedan Christmas (the author probably alludes to the Mevlood, or birth-day of Mahommed). Woe to any Christians, or more particularly Jews, who may fall in their way: they are sadly treated. I saw at Tripoli two French sailors who had their shoulders torn off by the lively embraces of two of these Yssaoois, in good humour; and they were fortunate to have got off so cheaply. If there are no Jews or Christians, they will attack fowls, cats, dogs, asses, camels, not even despising carrion. The soldiers who attend them take care that none of the brothers, who might be a little too much of the Yssaoois, escape from the procession. This community, which is purely religious, is divided into two branches, who fight with one another whenever they find an opportunity of so doing. That is nearly all that I know about them.

For

For the Monthly Magazine.

HINTS *to facilitate the Execution of the Design now in progress at Bombay, for establishing a direct and rapid Communication between* INDIA *and* GREAT BRITAIN, *by* STEAM PACKETS, *to navigate the Arabian Gulf or Red Sea, and the Mediterranean and Levant Seas.*

THE magnitude and utility of the proposed plan call upon every man, who is possessed of local information concerning the old route between India and Europe, to contribute his aid to its execution. The necessity of applying steam navigation to the sea passage between Bombay and Suez, is evident from the fact that the whole voyage is within the monsoons, or subject to periodical winds that are influenced by the monsoons, which have hitherto retarded for half the year a voyage that may in the other half be performed in a few days. We have a remarkable instance of this unfitness of the Red Sea for ordinary navigation, in the obstacles it offered to Buonaparte's project of invading British India, by forces to be sent from Egypt, the promised arrival of which in India excited Tippoo Saib to the war, which cost him his life, and dethroned his dynasty; it was in the season for traversing Egypt, which is between the annual inundations of the river Nile, and the periodical wind of the Red Sea did not leave within the reach of Buonaparte any vessels for the conveyance of his artillery and other heavy stores to India; all the ships of that sea had then sailed for Mocha, Medina, and the other ports near the Straits of Babelmandel.

The next portion of the route lies within Egypt, and there the advantages of steam navigation upon the Red Sea would again raise the question, whether Suez or Kosseir should be the station for the packets? The shoalness of the Red Sea to the northward of Kosseir, where a dangerous reef of rocks already bears the name of an English ship that was lost upon it, has occasioned the land route between Kosseir and the Nile to be preferred to the route between Suez and Grand Cairo, in modern times, though the distance by Kosseir is rather the longest; but with steam navigation, that is not liable to the perils, which beset ordinary sailing vessels, the route by Suez may perhaps be again preferred.

Permanent liberty and security of passage between the Red Sea and the Nile may be confidently relied on, because the commercial spirit of the present vigorous government of Egypt is not the mere result of the individual character of the Pacha, but is the necessary effect of certain territorial prerogatives of the government, which allow him to monopolize the chief products of the soil, and therefore make it his interest to encourage a communication through Egypt with other commercial countries.

The navigation of the Nile is so favoured by nature, that steam-boats are not absolutely necessary to it, though at a future period they may be introduced with advantage. The prevailing winds of Egypt, with few and short intervals, are from the north and northwest, running counter to the direction of the stream of that river in the Canopic or Rosetta branch, on which the proposed communication will be maintained, and being rather more of a side wind on the Pelusiac or Damietta branch; hence the quick passage of a djerm or boat of that country (by Bruce called a canja) is ensured either up or down the river almost at all times: because for ascending it the wind is generally fair, and in descending the broadside of the boat is kept across the stream, and the current bears her down against the wind; no more sail is set than is sufficient to keep the boat under steerage-way, somewhat in the manner in which ships drop down the Thames by the force of the tide against a contrary wind, but not by backing and filling the sails as they do; such an operation would not be practicable with the lateen sails used in the djerms, which, however, enable them, in a superior degree, to avail themselves of the reaches or bends in the course of the Nile, and of every expansion of its waters, where the stream is weak, by spreading the whole of their canvas. In this way the passage from Boulac (a suburb of Grand Cairo, situated on the banks of the river) to the Mediterranean Sea, is usually performed in three days, and often in less time, though the djerms usually lie by for the night at one of the many villages on the banks of the river; and in a like proportion of time to distance is performed the passage to Upper Egypt, when it is intended to disembark there and proceed to Kosseir. The rapidity of the passage in descending depends, of course, more or less upon the strength of the stream, which is weakest in the early months of

of the year preceding July, at which time the annual rising of the Nile begins to show itself in Lower Egypt; just before that period, the waters of the Nile are sometimes so low, that occasional inconvenience has been found from the shoalness of some parts of the Rosetta branch; but the Damietta branch is deeper, and free from all such impediments. The general fairness of the wind for ascending the river, besides being subject to occasional short interruptions from a southerly wind, is also liable, at least in Lower Egypt, to be suspended, from a little before midnight until after sun-rise the next morning, by the land breeze, common to all coasts within the neighbourhood of the tropics, and by the calm which intervenes before the return of the almost regular northerly winds, about nine o'clock for the rest of the day and the first part of the night; notwithstanding this, the ascent to Grand Cairo is usually performed in as short a time as the descent to the Mediterranean.

The land route between Rosetta and Alexandria is about thirty-five miles, and lies through the Lybian Desert; the first part of the route, as far as Lake Edko, is well marked by piles of rude brickwork: thence the road proceeds upon a neck of land, or dry sand-bank, which divides Lake Edko from the Bay of Aboukir, but is intersected by the entrance of that lake, and also by the entrance of Lake Aboukir, over which there are ferries; from the ferry over the latter, the road is along a tongue of land, which lies between Lake Aboukir and the Mediterrancan Sea.

That steam navigation is absolutely necessary in the Levant, must be evident from the prevalence of north-west winds, and the frequency of long calms, though it may be observed that the land breeze which prevails at night along the whole northern coast of Africa, affords great facility to ships sailing between Europe and Egypt; as, however, the intended steam navigation would probably be carried on between Alexandria and Venice, or some other port in the Adriatic Sea, no great value need be attached to this local convenience, because a vessel bound from Alexandria to the Adriatic must soon quit the African shore, and would thereby lose the benefit of the land breeze, which extends but a few leagues to sea. In steering north-west towards the entrance of the Adriatic, she would be liable to be becalmed under the island of Candia, where, as in other parts of the Mediterranean Sea, ships have been so long detained by calms, as to have, in a great degree, exhausted their stock of fresh water; hence appears the absolute necessity for applying this powerful invention to the whole of the passage from Alexandria to Europe: for in respect to the Adriatic Sea itself, whether we consider its narrow entrance, its confined breadth, the dangers of its navigation, or the long delays which attend the prevalence of any particular wind for want of sea-room, it seems more peculiarly to call for the use of steam navigation The question whether Ancona or Ravenna, or any other of the small ports between Ancona and Venice, would be preferable for the station of such steam packets, must be decided by consideration of the eligibility of the land routes through Italy and France, or by way of Germany to the Straits of Dover, which may vary with political circumstances; but when it is considered that the Ionian Islands, as British dependencies, would be improved and enhanced in their value by partaking of the benefits of the proposed communication; and that Greece, when emancipated, would be, as it were, brought nearer to England, there is collateral inducement for the adoption of the proposed plan; thus a direct and frequent communication would be maintained between India and Britain, in much less time than is usually occupied in a voyage to Rio Janeiro, though that place is but one-third of the way to Bombay by the ordinary passage round the Cape of Good Hope.

P.S. Lateen-sails and lug-sails being the fittest for vessels occasionally propelled by steam, the writer has invented a method of masting and rigging such vessels, by which lateen-sails and lug-sails will work themselves, like gaff-sails, without any more trouble than that of shifting the sheet rope; and the masts will present less surface or resistance to the wind, and will require less rigging than common masts. This method of masting and rigging is suitable for steam-vessels of between 350 and 400 tons measurement, or any lesser size, and is consequently fit for India and other steam-packets, and also for a new class of small cruizers, that would supersede all brigs, schooners, cutters, and common luggers, in the navy and revenue services.

J. M.

For the Monthly Magazine.

THE KIRGHEES.

THE immense steppes which extend beyond the south-eastern borders of Russia, are inhabited by a race of people, savage like their country, rude like their climate, numerous, brave, and at one time wealthy. These people call themselves Kirghees-Kaissacks, lead a nomade life under felt tents, generally called Kibitkes, and are divided into three hordes: the great, the middle, and the little. It is especially of the latter that we wish to treat in this description.

This horde nomadises (if we may use such a term) among the extensive districts between the river Ural, the Caspian Sea and the lake of Aral, the Sir-Daria, the lake Akssakal-Barbee, and the rivers *Irgis* and *Or*. Their camps are similar to those of their brethren of the middle horde, the Kara-Kalpaks, Kourds, Arabs and Turcomans; but how far, or in what particulars they are distinguished from them, is difficult to determine, owing to our want of exact data respecting those different nations or tribes.

This horde is divided into three principal races, which again are subdivided into thirty-two families. Their number is estimated at 160,000 Kibitkes, of ten persons each, including males and females. The middle horde is less numerous. About 10,000 Kibitkes of the little horde have settled in the steppe Run-Pesski, on the inner side of the Ural. They are called the *Bukejewski*-horde, after the name of their Sultan *Bukei*, who led them to this settlement in 1800, and who was subsequently made a Khan. In the year 1733, the little horde, and soon after the middle horde, submitted themselves to the Russian authority. Since that time the government of that country affects to exercise a certain supremacy over them, confirming their Khans, appointing commissioners and chancellors for the regulation of their affairs, &c.; all of which the hardy savages heed no more than the whistling of the wind, unless backed by two or three hundred infantry and Cossacks with a couple of pieces of artillery. Indeed, their vagabond mode of life, the great distance of their villages from one another, makes the power of the Khans themselves all but nominal; and the real authority resides with the Beys, Tarchans, or Baturs, heads of the villages and elders, who are elected by the people. But even their dominion is much circumscribed, and they are liable to be deposed, forsaken, or even murdered by their unruly and fickle subjects; even if they should be able to boast the acknowledgment of the Russian Czar. The Russians feel exceedingly sore at this turbulence of their Kirghees subjects, who, instead of being quiet and peaceful like the Cossacks, Calmucs, and other Asiatic tribes under their dominion, form one of the most serious impediments against the extension of their trade towards the east, and at times even become formidable to their own legitimate frontiers, about Orenburg and Omsk, which they annoy by their marauding incursions. Nevertheless the writers of that nation acknowledge that although they are unwilling to obey an incapable or unjust ruler, a chief who distinguishes himself by actions of benevolence and justice will command their respect and affection, and need be under no apprehension of being disturbed in the authority they have conferred upon him. The Khans generally undertake to escort the Russian caravans through the desert; but even then they are liable to be attacked by superior numbers, often of the Khan's own rebellious subjects, when the merchandize is plundered and the people led into captivity, to be ransomed at high prices. Neither menaces nor kindness, neither oath nor treaty can bind these robbers, who are as dangerous to one another as they are to strangers.

In former times their wealth in cattle was so great that in Orenburg alone near 10,000 horses, 2,000 heads of cattle, and 385,000 sheep were annually obtained from them in exchange for Russian produce and manufacture; besides great quantities of skins, especially of wolves and various species of foxes, camel and goat's hair, and a stuff made of camel's hair, and felt. But now this trade has considerably decreased, owing to their domestic dissensions, called *baranta*, and of late years, especially since 1816, to the frequent irruptions of the Khan of Chiwa, who wherever he went, broke up their camps, carried off their cattle, and killed or led into captivity the people of either sex. The middle horde is likewise very much impoverished, but as the country which they inhabit is much more productive than that of the little horde, and they are of a much more peaceable disposition, owing by the superior skill of their neighbours the Bashkirs in the use

of fire-arms, there is more hope of their recovering their former flourishing condition.

The Kirghees dislike every occupation, except that of the herdsman; there is not the least approach towards a permanent agricultural life among them. It is true that when a Kirghee has lost his herd or flock, he will take to agriculture; he will cultivate a piece of ground near some river or lake, irrigate it as frequently as may be required, and support himself in the interval with fishing. But as soon as he finds himself enabled, by the produce of his labour, to purchase a few heads of cattle, he will throw agriculture aside, and resume his pristine pastoral state. Indeed the steppes which these people inhabit are peculiarly unfit for agriculture. The unfruitful ground, covered with salt-springs, and the total want of food, renders any thing like a perpetual settlement impossible; and any attempt to alter the pastoral propensity of the Kirghees, would only tend to diminish the quantity of their cattle, on which their subsistence depends, and with which alone their deserts can be inhabited by man. This eternal idleness, however, the uniformity of the steppes, so wearisome for a man of physical strength and enterprizing spirit, envy at a neighbour's prosperity, revenge for former offences, rivalship, &c. excite the spirit of enterprize of these people, which produces the *baranta* mentioned above.

Leaving his tents and flocks, armed with a dagger, lance and bow, mounted on his faithful steed, and leading another for a change, the Kirghee gallops into the camp of another tribe, seeking adventure and fortune by robbery and violence. Returning with booty, he is saluted a *batur* (hero) by his tribe, he acquires general respect and confidence, and the weak seek his protection. They obey his command, accompany him in new enterprizes, and as their number increases with success, they soon spread desolation together with their chief's fame all around them. Those who are plundered and oppressed by them, assemble likewise to seek revenge, and recovery of their loss, and if they are beaten, they throw themselves in their turn, upon some unsuspecting camp, and indemnify themselves as well as they can. Thence the general enmities and hostilities among their tribes, which are transferred from the father to the son, to the most distant generation. This is the beginning and the end of the *baranta*.

The religion of the Kirkhees is in general the Mohammedan, of the Sunnite sect; but, with the exception of a few chiefs who have been brought up in Chiwa, Bokhara, and other places of Central Asia, where the Koran is very strictly followed, they are very lax in their piety. Since 1785, the Russians have occasionally sent them Mullahs from among their Tartar, or rather Turkish, subjects. These Mullahs are in some instances the secretaries of the chiefs, and charged with the education of their children. But such a desire of instruction is extremely partial, and has remained so notwithstanding the exertions of the Russian government, who went even so far, at about the same period, as to cause the erection of a mosque and two school-houses in the vicinity of Orenburg, for the special use of the Kirghees. But the mosque, as well as the schools, have never been visited by them, and the buildings are falling into decay, notwithstanding the continuance of the salaries to the priests, and schoolmasters then appointed. In spite of this general apathy to religion and instruction, the Russian government takes it for granted that all the Kirghees are Mohammedans, and in cases of any of them being appointed a chief, or engaged in a law suit, they are sworn on the Koran, or are exhorted by the Mohammedan Akhoon; and in 1819, on the request of some chiefs, Muhammed-Shan, who had long resided at Buchara, was nominated Mufti or Kasi of Orenburg for the Alimulinskian horde. The present Khan of the little horde is a very zealous Mohammedan; and one of his sons, Idiga-Sultan, is very well informed, and reads and writes the Arabic and Turkish with fluency. He is a great favourite among the Kirghees, and the Russians seem to hope much good from his influence among these savages. The chief causes of their ignorance seem to be idleness and arrogance: one of their chiefs being asked, why they did not learn to read and write, replied, "What use is it troubling our heads with such nonsense? this is the business of the Mullahs." But notwithstanding this dislike of studying, they are naturally eloquent and very fond of poetry. It is said to be no uncommon thing to hear an orator at a public assembly interrupt himself in an animated speech with a song, or a professed singer cease his song and introduce a piece

piece of oratory or extemporary verses. It is naturally to be supposed that people so ignorant are superstitious, and that their ardent temperament will be easily excited by any impostor who assumes the character of a prophet. In the summer of 1821, such a personage, named Morall, made his appearance among the middle horde, preaching the speedy subjugation of the horde, and various other misfortunes. The people put faith in him, and his followers became soon very numerous. They would have undoubtedly increased still farther, and the circumstance might have led to some serious results, had not the occurrence of an unforeseen event destroyed his Saintship, and the belief in his miraculous power. Two hundred Cossacks, with some pieces of cannon, appeared in the steppe as an escort to some engineers who had been sent out to make observations; the prophet urged the Kirghees to attack them, assuring them that he would turn the brass cannon into clay, and prevent them from firing. The Kirghees believed him, and having assembled in great numbers, made a furious attack upon the Russians; but the latter soon convinced them that their guns could still fire and kill, upon which they dispersed, and drove away the prophet with scorn. The Scotch missionaries, who within late years have settled in their vicinity, have tried hard to convert them to Christianity, but with no visible effect; although they now and then succeeded in making them accept of bibles. They are often duped by those who, having lost their property through the *baranta*, are wandering in the vicinity of Orenburg, and pretend to listen to the exhortations of the missionaries, for the purpose of getting bread from them. From all this it would seem, that the Kirghees form a large body of people, without religion, without knowledge, without laws or any civil institution, and obeying no authority unless coupled with force. There is however a conservatory power which supplies all these, *viz.* the force of ancient customs. There exists a tradition of ancient laws among them, whose influence is not yet entirely extinct, and which are even now from time to time enforced by some of their elders, who, in some instances, have even gone so far as to inflict capital punishment, although that authority is presumed to be vested in the Khans only. The following are mentioned as the principal of those traditionary laws: Murder was to be punished in two ways; if the assassin and his victim were of the same tribe, he was sentenced to death; but if they were of different tribes, the relations of the deceased might claim two hundred horses from the murderer, and in case of his inability, to pay this fine, from his tribe. Violence to a chaste woman was deemed equal to murder. In cases of wounds, or other bodily injury being inflicted, the principle was eye for eye, tooth for tooth, &c. Theft, on being owned by the perpetrator, or proved by four witnesses, was punishable with death; whilst the objects stolen were to be restored by the whole tribe at the rate of twenty-seven camels, or as the tradition has it, thrice nine camels and one slave, for a camel; twenty-seven horses and one camel for a horse; twenty-seven cows and one horse for a cow; twenty-seven sheep and one cow for a sheep, &c.

On the tribe's refusing this restitution, or in case of murder, the above-named satisfaction, called *Koon*, the offended party was permitted to take, with the knowledge and consent of his tribe, from the flocks of the refractory one, the fourth part of the fine due to him, but no more, otherwise the *baranta* was considered as a robbery and crime. These laws are said to have been enacted at a period of very high antiquity, by one *Tjouka-Khan*, whose name is still reverenced among the Kirghees. The sentence was passed by the assembly of the beys, after which one of them was charged with the execution of it.

After this general account of this extraordinary race of people, we shall proceed to give some details of their mode of life, &c., principally from the interesting narrative of a modern traveller. During the summer months they move with their cattle towards the north, and pitch their felt tents either singly or in small parties; in winter however they return to the south, where they form what is called *ouls*, villages, camps or hordes. Their domestic utensils are, an iron kettle (*kasan*), a tripod (*tgan*), a wooden bowl (*ayak*), a kitchen-spoon (*tshoomitch*), a common spoon (*kassook*), a small pail (*tshilik*), a jug (*koomgan*), and a few other articles.

The food, among the wealthy part of the people, consists of beef, mutton, goats', camels', and horses'-flesh. The meat is cut very small, and boiled as a hash (*biss barmak*), after which they drink a thin liquor, called *sarpa*. The poor people eat porrage of millet, in

which they sometimes mix a little fat. Sometimes they content themselves with eating raw millet, dried wheat (*bjudai*), barley (*arpa*), which is all together called by the common appellation of *koormatsh*. From the flour of these different kinds of grain, they boil a porrage (*balamooik*), which is sometimes mixed with butter or fat (*ssarumai*). Besides this they make cakes (*nan*) of it. They drink water (*ssoo*), new milk (*ssoot*), sour milk (*airyan*), and sour mare's milk (*koomoois*). They make also a kind of cheese (*koort* or *kroot*) from sheep's milk, which, when dissolved in water, serves for drink and food at the same time. They make also a kind of spirit (*arak*) from sour mare's milk, which is used as a medicine.

Their general costume consists of a cotton or silk wadded coat (*tshapan*), a fur coat (*ton*), under garments (*dambal iskeeit*), a belt (*beeil*), boots (*eetuk*), a shirt, open in front (*shogdu*), wide trowsers (*tshalbar*), a large woollen coat (*tshakmen*), a seal cap (*tyoobeti*), a hat (*colpak*), a cap (*toomak*), and a pouch, suspended from the belt (*kalta*). The women's dress generally consists of a blue under-dress (*keeooldyak*), the head-dress (*ssoukalia*), a head-cloth (*shoulook*), a fur pelisse (*shiooryantsha*), a metallic (*que*) pelisse (*loomartsha*), a band of mock-corals (*montshak*), beads (*marshan*), &c. Dr. Bolshoi says, "it is pleasant to see a woman or girl in her best attire, sitting firmly on a wild horse, and running a race with some young man, who is often left behind." Their musical instruments are a fife (*tshabusga*), a balalaika (*dorba*), and a fiddle (*kobus*), on which their mountebanks and physicians generally excel.

The principal occupation of the Kirghees (as was said before) is the tending of their cattle and sheep. Besides the sheep (*koi*), goats (*ishke*), horses (*shilka*), camels (*tyooya*), cows (*ssuir*), and oxen or bulls (*ogyoos*), dogs (*it*) and cats (*moossuk*) form part of their establishment. The cattle are kept in the field during the whole winter, when they feed upon the dried grass which they scrape up with their feet. For this purpose they drive out first the horses, then the camels and cattle, and at last the sheep and goats. The horses are never shod; the camels are covered with blankets in the winter. All the animals get very lean and weak towards the spring; the sheep entirely lose the fat of their tails, which they only recover during the summer; indeed a great quantity of cattle perish every year from cold and want. Hunting and shooting are carried on more for amusement than as means of sustenance. They hunt with dogs and trained eagles (*quere*, falcons?), and shoot with arrows and guns. The fish are caught in winter with hooks through holes made in the ice, or they benumb them by beating on the ice, and then breaking it, take them out. In summer they occasionally spear them. Sometimes they catch pike, by troubling the water, which induces the fish to swim on the surface. A few of them will cultivate the ground in some fertile parts of the steppe; and although it rains there very rarely, they reap of the milet (*turn*) sixty fold, wheat and barley tenfold and more. They also grow a little rye (*karassgoola*), which is only given to the cattle. Their melons (*koun*), water-melons (*karbooss*), and pompkins (*asskabak*), are nearly as good as those of Bokhara and China. From the former country a species of millet is imported, called *Shyoogaree*. The water is led in small channels from the rivers to the low parts of the land for the purpose of irrigation. The tools for agriculture, are the plough (*yegin agatsh*) and the harrow (*mala*). The Kirghees are very fond of tobacco, but principally as snuff. Dr. B. says, that in 1804, he sowed some Chiwa tobacco for the first time on the banks of the Sur, which succeeded perfectly, and it was found preferable to that of Bokhara. They trade along the line of Orenburg and in the fortresses of Orsk and Troizk. On attacking the caravans or in their *barantas*, they are always armed cap-à-pie. Their arms are: a sword (*kolush*), a musket (*mooltuk*), a lance (*naisa*), a bow, a bundle of arrows (*ok*), a quiver (*ssaidak*), a dagger (*kinshal*), a cuirass (*ssout*), a knife (*peeyak*), and a stout whip (*kamtsha*). They calculate by the lunar year, like the rest of the Mohammedans, giving however to each month (*ai*) thirty days. They keep the Rhamadan, which they call *ooroosa*, during which time, when they feast at night, even the poorest are expected to eat flesh-meat. The women and children are exempted from the rigours of the fast. Respecting their incantations, in cases of sickness, Dr. B. relates the following instances, which he himself had witnessed: "I was called in to a man who suffered both from dropsy and from stricture. I could give him no relief. At the same time

time a Kirghees physician (*dargeer*) with his assistants were called in, and were soon followed by the Achboon (elder priest) and two or three Mullahs (junior priests). The latter sat down in a semi-circle round a bowl of water in which they blew, muttering prayers, and passing beans from hand to hand. In the mean time the physician put some knives without handles into the fire, till they were red hot, when he ordered his assistants to take them out; after which he took water from the bowl in his mouth and squirted upon them, observing at the same time the rising of the steam. The patient stood all the time, supported by two men, with his back turned towards the juggler, in a manner that the steam could not reach him. This ceremony having been gone through, the physician asked his servant: *inde togoos boldu ma?* (will nine be enough?) upon which the latter replied: *boldu* (enough); the physician said then: *indekoi otoor* (sit down). After this he melted in an iron pan some mutton suet, and having put in a rag and turned it round, he squirted some of the same water into it, which created a hissing. Having repeated this several times, he threw the pan out of the tent. The patient was now seated on a carpet purposely spread near the door, and the physician having called out: *Kara ishka da alet kel!* (bring the black goat!); such an animal was brought in, and the assistants having seized her, the one by the fore and the other by the hind legs, they carried her three times round the patient, knocking her against him on every turn. This ceremony was repeated with a grey and a white goat, and six sheep in succession. The Kirghees Æsculapius, probably weary by his useless labour, now again inquired: *inde togoos boldo ma?* and the answer being *boldu*, the ceremony was finished, upon which they seemed not a little proud, asking me whether people were cured in Russia in the same manner. Seeing that there was nothing to do here for me, I returned to the *oul* of the Khan; and three days after I was informed that the patient was dead."

The following is a description of a different ceremony, undertaken for the cure of a lady who was subject to convulsions:

"Towards the evening a number of people of both sexes assembled in a kibitke, purposely set up for the occasion. The patient was seated on rich carpets, in her best attire, and was covered with a thin white silk cloth. All of a sudden the magician (*bakssu*) appeared with a *kaboois* (a kind of fiddle covered with horse-hair instead of strings), in his hand. Having seated himself opposite the patient, he began playing on his instrument in a shrill, although not unpleasant tone, with which he accompanied his own horrible bass voice. Now and then the people joined him with a terrible roar. Sometimes they cried, *Kotch! kotch! kotch!* in the manner they call their dogs; and at others they sang with drawling voices, and shaking their bodies backwards and forwards: *Allai opa! Allai opa!* (God help!) all which in some measure resembled our rural Christmas sports. And thus the first evening was spent till midnight.

The next day, the assembly having met again, the *bakssu* went through some of the ceremonies of the previous day; during which he gave the patient thirty-one blows on her back with a stout whip, so hard that it made blue marks on her skin. Then he jumped and capered like a madman, and struck against the sides of the tent, as if he would drive anybody out. After this he threw himself on the patient, like a rabid dog, and bit her till the blood flowed. Then again he drew an immense knife, with which he pretended to stab the lady, which latter ceremony was intended to stop the flowing of the blood.

On the third evening some thin tallow candles (*ssirach*), placed in two bowls filled with earth and sand, were kept in readiness, together with a dead raven, a water-melon, and a pumpkin. When the *bakssu* had wearied himself with his contortions, he went out into the street carrying the raven, and was followed by the people, who carried the other articles mentioned. As soon as they got out, they raised a terrible yell, threw away the things they held in their hands, and returned into the kibitke. In the mean while the patient lay on her back, covered like a corpse with a white sheet. The *bakssu* again sat down at her feet, and repeated the ceremony of playing and singing. I perceived that after the words, *Tart, Shyanum tart!* the patient's chest strongly heaved, keeping time to the instrument. After some time the *bakssu*, in a fit of extacy, fell backwards, stiff like a tree, but gnashing his teeth and foaming at the mouth, and turning as pale as death. But what was most remarkable, the patient

tient fell at the same time in a similar state.

Having lain for about five minutes, he was raised by his countrymen, and gradually recovered his senses. He then again began to play, singing in a plaintive strain: *ei Temeerum, Temeerum* (Temeera was the name of the patient), whilst the poor woman seemed to lay in a burning fever.

This foolery was repeated for nine nights. On the last night, the enchanter made the patient drink large quantities of warm water, and smoke tobacco, in order to excite vomiting. The patient, indeed, for the present recovered; but, after the lapse of a few weeks, her malady returned, which probably was periodical.

If a malady is thought to be of such a nature, that neither the *durgheer* or *bakssu* can avail, the inhabitants of the oul, and especially the relations, will meet, and watch for nights with the patient. If no priest is at hand, a man or a woman will repeat a few verses from the Koran from memory, blowing after every verse into the patient's face. The latter, on his side, chaunts, as long as he is able, *oi Allai mai!* (oh my God!) &c. Aged people make a kind of will, not only in favour of their families, but of all the people. One man, for example, ordered that every one who should pass over a mountain where there were any grinding-stones, should take one with him, in order to whet his knife for the purpose of cutting the meat in honour of his hospitality. If any one dies, one may hear at least fifty persons raising the most dreadful howls; while some of the women will tear their hair, strike their breasts, scratch their faces, &c. If the death occurs in the evening, these lamentations are continued during the whole night. The corpse is washed with water, wrapped up in linen, and buried, with the head lying towards the north-west, in a manner that the earth shall not be immediately on the body; which is effected either by making the grave in a slanting direction, or covering the body first with reeds or branches, before the earth is placed upon it. If they happen to be near a burying-ground they will bury the body in it; and rich people will sometimes remove the bodies of their relations from a temporary grave, in order to inter them among their kindred, and erect over their graves some sort of monument, either of stone or brick *(masarka)*. A large burying-ground (*moola*), or, as they are more commonly called, holy places (*awlya*), is commonly placed near some river. On burying the dead, they recite a short prayer, which they repeat at the seventh and fortieth days, and at the end of the year, with the difference, that there is more ceremony at this period of the obsequies than at any of the former. Anciently they used to bury arms and other articles with their dead; but, owing to the general poverty of the people, this practice has been discontinued.

When a woman is in labour, she is frequently surrounded by a host of people of both sexes, who pray for her. Their weddings are performed much in the fashion of the Tartars. When they cut their hair or nails, they collect them carefully, and having added some bits of reed or grass, they bury them together; a custom which is also observed among the Jews, at least with respect to their nails, which they burn, together with some parings of wood. Should a hair, or the paring of a nail, be found among any article of food, even when dry,—such as millet,—such food would inevitably be thrown away. Y. Z.

To the Editor of the Monthly Magazine.

Sir,

As a reader of your periodical work for many years, I hope you will indulge me by inserting the following observations on the character and success of Dr. Strouve's method of imitating the different mineral waters of Germany and Bohemia, which he is now on the point of introducing into this country.

Having been himself educated for the medical profession in his native country (Saxony), Dr. Strouve had his attention naturally drawn to the subject of the medicinal springs with which the whole of Germany abounds; and several years ago he fortuitously acquired the command of an extensive laboratory, which enabled him to gratify the desire he felt of instituting a systematic inquiry into the chemical properties of the most celebrated amongst them. The result has been, that, after having developed the principles of the natural combination, he conceived the possibility of producing the same artificially; and thus extending the benefit of their use beyond the site of the spring itself, which could never be done by bottling the real water, on account of the loss of gas which attends that operation.

With the concurrence and the active co-operation of the leading physicians of

of Saxony, Dr. Strouve opened an institution at Dresden, in the summer of 1819, for the purpose of giving his artificial waters of Carlsbad and Marienbad to the patients, who were recommended to try them, instead of visiting the springs. This was done in an open garden, containing a spacious pump-room, wherein, by means of machinery, he preserved reservoirs of the warm waters at their requisite temperature, and restored the gas which had escaped during the process of preparing them for use.

The success of this experiment exceeded his most sanguine expectation. During the season several hundred patients, who had been accustomed to pay an annual visit to the baths, and who consulted Dr. Kregsig, physician to the king of Saxony, on their way through Dresden, by his advice used the artificial instead of the natural waters; and these eventually proved as beneficial as the spring itself.

The following season the same success attended Dr. Strouve's establishment. He increased the number of the imitated springs; when the addition of many new visitors induced him to form a similar institution at Leipsic. Here, too, his plans were attended with the same favourable result; and amongst his patients in both cities were several Englishmen, who had visited Germany for the sake of using the mineral waters, either medicinally or by way of bath.

The success of his undertaking now began to attract the attention of the neighbouring states; and Dr. Strouve received a flattering testimony of its merit, by being invited to establish similar springs in Berlin, Warsaw, St. Petersburgh, and Moscow, as well as in some of the principal towns of the minor German states.

For the purpose of introducing these artificial mineral waters into England with the best possible effect, Dr.Strouve has erected an extensive building at Brighton, in a garden, where the whole process, from the act of purifying the various ingredients to that of administering them to the patients, will be carried on under the same roof. A pump room, fifty feet by thirty, containing on one side the apparatus for the production of the waters, will be thrown open at five o'clock in the morning; and the various kinds may be then taken under the same circumstances as at the watering places.

With regard to the waters themselves, they are too various to allow me to enter upon any detailed description of them here. It remains to be tried in this country, whether the peculiar combination of the ingredients with the gas in the water imparts to it any properties which can only be obtained by that means, or not. In favour of this hypothesis may be quoted the experience of ages, during which patients have continued to drink mineral waters with advantage; and although this has been imputed to the relaxations created by a journey from home by many eminent physicians, yet the evidence of more recent experience, which has arisen from the use of Dr. Strouve's artificial water at Dresden by the inhabitants of that city, must be admitted to be a powerful evidence in favour of the efficacy insisted upon by the German physicians. Dr. Kregsig, in a paper published with Dr. Strouve's prospectus, says, "Upon myself, the *artificial* Carlsbad waters have had an uncommonly good effect: I am indebted to them for as much relief as I formerly experienced from the natural mineral waters," &c. &c. He, of course, took them in Dresden, when his own extensive practice would require a continuance of the same attention and exertions as at any other time. A work is now in the press by Dr. Kregsig, which has been written for the express purpose of describing the mode of using these waters, and of treating the patient whilst under the influence of them, which cannot fail to be of great service in the commencement of their introduction into this country.

Amongst other waters, Dr. Strouve prepares an artificial Seltzer, which is likely to become, in this country, an article of very extensive consumption, from its agreeable character as a beverage, independent of its medicinal properties.

In Germany, where the real Seltzer water (even in its deteriorated state, arising from the mode of bottling) is a common luxury, upwards of one million and a half of bottles are yearly consumed, besides large quantities which are shipped to the tropical climates.

Permit me, Sir, to apologize for the length of this letter, and assure you of my esteem. K.

JOURNAL *of an Officer in the Irish Legion, lately serving in Columbia.—Tour from Merida to the Vale of Santa Maria Anna.*

LEAVING Merida in the morning, we proceeded to the vale of Santa Anna: in our way we visited the ruined monastery that belonged to the Dominican friars previous to the revolution. Here, instead of bare walls, we were surprised to find gilded roofs, marble altar-pieces, and other vestiges of grandeur, that might have done honour to Rome or Paris. In the nave and chancel lay many good and holy fathers, whose pious stories were engraved upon their tombs for the benefit of posterity; but, unfortunately, time and the damps had been extremely busy with them. One monument struck me more particularly: it bore a copper-plate, neatly fitted into the marble-slab, surmounted by two panes with wings, which covered the tomb, and on this was the name of the late superior of the order, in Spanish, with many encomiums on his good qualities. Amongst many other titles, all too flattering for any virtue except that of a romance, he was classically styled, *Fulcrum Miserorum, gemma virorum.* Having a natural curiosity to know something of a man's history in whose character those rare traits were to be met with, I inquired of an old Frenchman, who accompanied me, as to his knowledge of the superior. He told me that the Monk had originally come from Seville, in old Spain, with a view to improve his fortune; that, in consequence of the refusal of another prelate to place himself at the mercy of the wind and waves, he was appointed Bishop of Venezuela, and that on his translation to this rich see he resided between Maracaibo and Merida. I asked the Frenchmen whether the hero of his tale had died rich? "Oui, Monsieur;" —not content with an income of forty thousand dollars, on the death of the governor of Maracaibo, he made free with the treasure in the royal chest; a defalcation of six hundred thousand dollars was the consequence, which could not be accounted for, and the governor's haciendas were confiscated in order to make good the deficiency. Not thinking it prudent to return to old Spain, he retired to the convent, where he assumed the character of a hermit, and lived with the fathers a life of piety and mortification, according to some; but, as others tell the tale, in all manner of voluptuousness and hypocrisy. He himself had been pressed into the Monk's service as baker-general to the convent, to superintend the bread and pastry, and also to act as pilot to his pleasure barge on the lake: during the life-time of the superior he had enjoyed a tolerable easy place of it, but after his death the monks had obliged him to cut fuel to serve the ovens, for which he got many benedictions in lieu of his promised salary. I asked him to whose gratitude the superior was indebted for this handsome monument; he replied, to the fishermen of Maracaibo, in return for his having obliged his flock to abstain from meat three times a week, which gave them a good market for their fish: perhaps the hint was taken from Pope Leo, who proclaimed Saturday a fast-day in England, to oblige the pious fishermen of that country, who gave him a douceur of five hundred pounds for his papal benevolence.

The monk could hardly have fixed on a more delightful spot through the whole earth, than that retreat which his own see afforded: here he could enjoy his *otium cum dignitate* to his heart's content, unruffled by the care of this world, amid the romantic scenery of forests, lakes, rivers, rocks and hanging gardens, with a climate the most favourable. The gardens belonging to the convents have gone to ruin since the revolution, but sufficient vestiges of taste and decoration still linger to tell what they once were. Innumerable flowers and blooming shrubs emit a delightful fragrance, while the numerous exotics once collected in the green-houses of the convent have been suffered to remain, and, beautiful even in neglect and wildness, lend a charm to desolation. These monasteries are connected with the female convents in the vale by a serpentine walk about a mile in length, shaded by tall trees interwoven so as to exclude the rays of the sun: at proper intervals, little arbours are placed, festooned with the acacia, in bloom the whole year round, and other flowery shrubs equally rare to the European. Here the fathers were often entertained by the sisterhood with coffee, lemonade, and fruits, until dusk. Our French guide also told us, that the demon of civil war caused a feud amongst the nuns of the two convents, who espoused the cause of their respective partisans as fiercely as the contending generals and their armies: it was not unusual,

unusual, he said, to see the radical nuns going before the inquisitor-general of their order with black eyes, and other tokens of the courage with which they had maintained their doctrines. In the avenues of the shrubbery or tinta we met a fat monk, who, in the course of our conversation with him, regretted that the extreme poverty of the brother and sisterhood prevented our being received with the usual hospitality of their prosperous days. As he looked too comfortable a personage for a pauper, I remarked that fasting and mortification were forgotten with other comforts. This ill-timed repartee he took no notice of more than by a significant shrug, remarking, that before the revolution, they enjoyed many privileges, but that the country growing poorer, and consequently more wicked, contributed very little at present to their support. I told him, for his consolation, that a French and English colony would soon repeople the land, and give a fresh energy to manufacture and commerce. "Oh, Santa-Maria," said he, "Voltaire and Paine's disciples!" A prolonged ha-ra-co succeeded a pause, in which he was evidently labouring under some mortifying perplexity; to add to his chagrin, I told him a worse evil than those was to follow, as the Methodist missionaries were instructing some Saint in the Spanish language, in order to preach the gospel in South America to the people of colour. I can hardly describe the emotions of the good father on hearing this account: he looked in despair, and prayed to God to remove him out of the world before that occurrence should take place. I left him, however, to his own reflections, which I dare say were any thing rather than pleasant. The Frenchman wrinkled up his face into an arch smile, exclaiming, "Monsieur padre is von damned grand gourmand," and added that this fellow was a greater plague to him than any of the fathers; "he used to squeeze my nose, Sennor, in the wafer tongs, if he had not the wafer for the sacrament and his breakfast-bread by six o'clock in the morning."

In our way onwards, we saw five other convents, mostly in ruins from the earthquake; but, dreadful as such an event must be, one can hardly regret its having destroyed these receptacles of pious indolence, which operated as a double tax on the community, by withdrawing from the general toil so many people capable of labour, and then taxing those that remained, for their support.

This charming spot is infinitely picturesque and delightful: a succession of the most fertile hacundas cover the vale for nine leagues; as far as the eye can range over to the lofty Paramos de los Cunegos Mountains you are sure to see the vine and olive appear in rich luxuriance, festooning the props that support them, while vast plantations of sugar-cane diversify the appearance in the vallies. Nothing is wanted to the perfection of this scene, but that moral beauty which is supplied by the presence of an industrious population, and humanity would hope that this will not long be wanted; the tide of liberty and intelligence is setting in with a powerful flow over the whole world; and though despotism may check the rapidity of its course by temporary barriers, it must eventually bear down every obstacle opposed to it, and leave only the ruins of slavery as the earthquakes have left the ruins of the convents.

For the Monthly Magazine.

On the Nature and Efficacy of a new Principle for improving the Sailing Properties of Square-Rigged Ships.

THE treatise lately published by Sir Henry Heathcote, Captain, R.N., demonstrating the superiority of his patent stay-sails over the common stay-sails, is an instance that some naval officers at least are superior to established prejudices, though the navy in general is slow to receive improvements. For nearly two centuries, the art of rigging ships has not undergone any material alteration upon scientific principles, as appears from original paintings and drawings of ships executed early in the seventeenth century, and from the writings of Sir Walter Raleigh. If, as the great Lord Bacon says, "wise and exact men have thought that there are ebbings and flowings of the arts and sciences;" it is surely time, after having for two centuries overlooked defects, and "venerated error," that some progressive impulse should break the fascination which leads most men to think this art perfect, though it is devoid of science, disfigured by the complexity of clumsy expedients, and in many circumstances of wind and weather utterly inadequate to its true object.

The writer of this article differs from Sir Henry Heathcote as to the means of improving the sails of ships. He

does not, indeed, controvert the superiority of Sir Henry Heathcote's patent stay-sails over those in common use; but he denies that there is any necessity for retaining any of the stay-sails of the main or mizen-masts, except the two lower stay-sails, and those only for occasional use: all the rest of the main and mizen stay-sails he would for ever exclude; and he conceives that when he shall have given his reasons for this revolution, it will also be found practicable to dispense with one-half of the cumbrous and troublesome stern or steering sails, the modern spanker, and all the try-sails and gaff top-sails, excepting the mizen try-sail, which may at times be useful, making together more than twenty sails, about one half the number with which a ship is now equipped, and which contain above one fourth of her canvas; he also expects it will appear, that his principle of rigging ships would dispense with the so frequent use of the remaining half of the stern or steering-sails. This great reduction, and the removal of all the running rigging, booms, spars, and other *top-hamper* belonging to those excluded, would save much of the seaman's toil, would leave a large proportion of the crew disposable to better purposes, with vast additional improvement of the sailing properties of ships in lying nearer to the wind, and also in going faster a-head, both close hauled and when going large or before it. A ship thus improved would have greater stiffness or stability to enable her to open her lower deck ports in bad weather, as she would be relieved from so much top weight, and she would have much more symmetry and simplicity in her sails and rigging. The principle of this change remains to be explained.

The well-known fact, that fore and aft-sail vessels can lay a course, and retain their headway, much nearer to the wind than square-rigged ships, proves that the windwardly power of canvas is greater than has yet been developed in the latter, and that such deficiency is caused by an error in their equipment. This difference in windwardly power between those two kinds of vessels is one point of the mariner's compass, which is equal to an angle of $11^{0}\ 15''$ in favour of gaff-sail vessels, and a point and a half making an angle of $16^{0}\ 52\frac{1}{2}''$ in favour of lug-sail vessels; lateen-sail vessels will lie still nearer to the wind, but as that species of sail is unfit for large ships, it need not be here examined.

It is also well known, that sails suspended from yards, slung in an horizontal position, or in a direction approaching to it, are the most lively, lifting, and propelling species of sails, and are not pressing, like gaff-sails, which cause a vessel to heel or incline with the wind more than she would under an equal spread of canvass in square sails, or lug-sails. Now, the lug-sail combines those good properties, in a superior degree, with its own windwardly power when close hauled, and also has greater propelling power than the square-sail when going large or before the wind: for these reasons it is the most powerful of all fore and aft-sails, and would be the fittest for chase, but that, as now slung and worked, it is not so manageable as the square-sail, and therefore is not so applicable to large vessels. The lug-sail, as now slung and worked, is subject to the great inconvenience of dipping the yard in stays, and of shifting it and the sail to leeward of the mast, and of hoisting them up again, which inconvenience at present excludes the lug-sail from all vessels except small craft; the largest of these are obliged, for the purpose of avoiding that troublesome operation, to carry some of their lug-sails to windward of their masts, which diminishes the power of a lug-sail so carried, by making the luff operate as a back sail, it being difficult, if not impossible, to carry the tack so far to windward, as entirely to prevent the sail from touching the mast. Other luggers, to avoid the trouble of dipping their yards in stays, are provided with two lug-sails for each mast, which they have ready on deck for use upon alternate tacks, the leeward sail being hoisted, and the weather sail lowered—a very insufficient remedy.

It is therefore necessary to improve the affinity that exists between the square and the lug-sail into a perfect union, by inventing a species of sail which shall combine the advantages of both, being as windwardly and powerful as the one, and as manageable as the other. That important improvement would be effected, if we could free the square-sail from certain impediments to its proper set and action, that are caused by the present position of the stays of the masts in respect of other parts of the standing rigging, without depriving the mast of support, and if we could substitute a mode of suspending and working the square-sail, which shall enable it to take, upon each tack, the true

true set and position of a lug-sail, without dipping the yard in stays, for there is not any inherent difference between those two sails, besides that which results from the different methods in which they are slung, as the peak or slope at the head of the lug-sail is not essential to its proper effect. The cause and nature of the defects of the square-sail, and the principle, from which the lug-sail derives its superior powers, shall now be explained.

The experiment upon the square-sail, made and published by Captain Gower, of the Honourable East-India Company's Service, demonstrates that the main pressure of the wind against a square-sail, close hauled, is in its weather half, consequently the parl and halyard should then attach to that part of the weather yard-arm at which the wind chiefly operates, and ought not to be always fixed to the middle of the yard; by this improper mode of slinging the yard of a square-sail, it is subjected to its present defects, as the main pressure of the wind against a square-sail, as now slung, is to windward of the mast and causes the sag or belly of the sail to begin in the *luff*, which therefore lifts with the wind sooner than the luff of any other sail, and requires to be kept further from the wind, and assisted with bowlines to keep it full. The same cause makes the after *leach* of a square-sail operate as a back-sail to retard the ship, increase her lee-way, and prevents the escape of the dead wind that has spent its force upon the weather-half of the sail. The equality of strain that is cast upon the tack and the sheet of a square-sail, also cause it to retain the dead or spent wind, and whatever send or sway of the yard is left by the braces, being in the weather yard-arm, is unfavourable to the progress of the ship to windward. These concurring effects of slinging a square-sail by the middle of the yard, destroy about one-fifth of its windwardly power when close-hauled; and presently it shall be shown, that from the same cause the square-sail loses one-sixth of its propelling power when before the wind. The difference of opinion that exists among seamen upon the question, whether the weather or the lee-lift of a square-sail should be kept *tought*, proves that the cause of its defects is not generally understood, and that the application of a scientific principle is necessary to give consistency to practice.

On the other hand, the lug-sail being slung at its supposed fulcrum, in the proportion of one third of the yard to windward of the mast, where the main pressure of the wind operates, and of two thirds to leeward of the mast, the weight of that greater proportion of the yard and sail to leeward, casts a perpendicular strain upon the luff of the sail, which therefore meets the wind at a more acute angle than the *luff* of the square-sail, and does not lift so soon as the latter with the wind; that greater weight to leeward of the mast also prevents any superfluous strain upon the after-leach of the lug-sail, which therefore gives a vent to the dead or spent wind, and does not operate as a back-sail, and the sway of the lee yard-arm, in consequence of its greater length, sends the vessel to windward and a-head, the main resistance of the water being against the lee-bow of a vessel close-hauled.

These great advantages are derived by the lug-sail from the scientific principle on which it is slung, the yard intersecting the mast at the *point vælique*, as the French term it: that is, the point at which the line of resistance of the water at the bows of the vessel, intersects the line of the main pressure of the wind upon her sails, which point would be evidently at the intersection of the yard and mast of a vessel carrying but one lug-sail, when she sails close to the wind with her helm amidship, as she would do if the mast be stepped in the proper place: and that would be found in the fore-hold, more or less advanced according to the mould of the vessel.

So true is the superiority of this principle of the lug-sail, though so little understood, or adopted, that even the Chinese have some idea of it, as the square-sails of their junks are slung somewhat like a lug-sail, at a point some little distance from the middle of the yard, in the proportion apparently of about two-fifths to windward, and three-fifths to leeward of the mast; and the frames that spread the sails of a common windmill are fixed to the arms of the mill in nearly the same proportions; but it appears that the Chinese sometimes carry the longer yard-arm to windward when close-hauled, from not knowing that the point at which the yard is suspended, should coincide with the line of the main pressure of the wind; which occasional misapplication of the principle probably arises from a notion that the method described gives greater stiffness

or stability to the vessel, but it destroys the good effects of the unequal suspension of the yard, and turns it into a positive disadvantage when close-hauled in that way, for the reasons above stated. Whether the Chinese or European, or what other proportion for slinging a lug-sail yard, gives the true fulcrum, should be tried by experiment; but no nation seems to be aware of the necessity or practicability of making the point of suspension, technically called the sling and truss, or halyard and *parl*, moveable on the yard, and for making the lifts adapt their tension to that movement, which with the traverse of the sheets of top-sails and top-gallant-sails, and the removal of impediments from the standing rigging, to allow the yards to be braced up to 20° instead of 35° to 40° obliquity as at present, constitute the *sine qua non* for combining, in one sail, the good properties of the square-sail and the lug-sail, free from their present defects and inconveniences.

The measure of the superiority of the lug-sail over the square-sail, when close-hauled, will be found theoretically in the difference between the angles they severally make with the keel of the vessel, as the lug-sail carries its tack amidship, or nearly so, and the square-sail carries its tack on the weather gunnel or nearly in a line with it; but practically, the measure of that superiority consists in the difference between the angles of the courses made good to windward by a lug-sail, and a square-sail rigged vessel, which is commonly a point and a half of the mariners' compass, that is $16^{0}\ 52\frac{1}{2}''$ in favour of the lug-sail. How far lee-way may diminish or increase that angular difference made good to windward, depends upon circumstances of weather, and the sailing properties of particular ships and vessels, and upon the fact that leeward tides and currents sweep away square-rigged ships more than fore and aft-sail vessels, because they strike the former more on their broadsides in proportion to that angular difference, but in general the difference of leeway is against a square-rigged ship. The importance and possibility of adding that angular difference, made good to windward, to the present course of a square-rigged ship when close-hauled, appears from this fact, that although she will lay or look up to five points and a half, she loses headway if kept nearer to the wind than a six-point course, to which if we add the lee-way and stern-way in stays of a square-rigged ship, which are seldom less than one point even in smooth still water; it will be evident that a square-rigged ship makes good to windward but one point out of eight contained in a quarter of the compass, that is, an angle of but $11\frac{1}{4}^{0}$ out of a right angle, or 90^{0} in the most favourable circumstances, which angle of $11\frac{1}{4}^{0}$ is often insufficient to countervail occasional disadvantages, such as the send or drift of a heavy head sea, the veering of winds a-head, yaws from bad steerage, and leeward tides or currents, as in such circumstances she cannot make good a better course than she would sail with the wind on her beam. Hence it is impossible for a common ship to make a passage against steady adverse winds, like trade-winds and monsoons, or even to clear land or ice when embayed in bad weather, unless she happens to be favoured by windwardly tides or currents, or their eddies, or by occasional slants or veerings of wind, *and therefore a common ship is inadequate to the safety of life and property, and to the necessary operations of commerce and of war.* But the proposed combination of the good qualities of the lug-sail and square-sail in one sail; and the application of the principle of that improvement to all the square-sails of a ship, by a lateral and simultaneous movement, would constitute a *ship-lugger* superior in windwardly power, by $33^{0}45''$ including both tacks, and in velocity both by and large, or before the wind, to any common ship, and that could go to sea and make a passage, when a common ship must lie in port, or would be cast away.

The proposed ship-lugger could dispense with all the sails that are above excluded, because two-thirds of a lug-sail when close-hauled, being to leeward of the mast, the lug square-sails for that reason and because of their sharper trim, would occupy those positions to which stay-sails, try-sails, and gafftop-sails are now applied for the purpose of intercepting certain streams of wind that escape between the common square sails of different masts, and as the lug-square-sails would be more powerful and windwardly than any of the sails so dispensed with, because a stay-sail properly so called, being triangular, is but half a regular sail, and a gaff or try-sail is but two-thirds of a regular sail on the principle here stated. The best of the stay-sails now in use, *viz.* the main top-mast stay-sail, has little effect except when going a point free, and though

though that and some of the smaller stay-sails are in form a *trapezium*, that shape, when close-hauled, sends the ship to leeward more than a-head; and in respect of gaff or trysails, they are as before stated, pressing and not lifting sails, because the spent or dead wind is forced diagonally upwards and off at the peak or gaff end; and yet so defective are mere square-sails, that common ships are sometimes reduced to the necessity of taking them in, and of trusting to those inefficient stay-sails and try-sails to clear a lee-shore.

The single advantage of enabling a ship to work faster to windward, is sufficient to mark the importance of the proposed plan; it is the grand *desideratum* of naval improvement, to which sailing faster when going large or before the wind, is but a subordinate quality: yet this last-mentioned advantage also attends the proposed principle, because a lug-sail spreads itself wing-like *one-sixth* of its own breadth farther over the side of the vessel than a square sail of equal size, which difference becomes equal to *one-third* more canvas, when the lug-sails of two masts are so spread over the opposite sides, and the aftermost lug-sail does not becalm the other, like an aftermost square-sail; such increase in the spread of the canvas would dispense with the trouble and cost of stern or steering sails when before the wind, yet as they may be sometimes beneficially applicable to the lug-square sails, it may be advisable that one-half of the stern or steering sails should be retained, until trial shall have ascertained whether their utility would compensate for the trouble and expense they occasion.

It is impossible by a dry description, even with the aid of a plate, to convey an accurate idea of the technical details of the manner in which the proposed ship-lugger can be thrown in stays; but it may be assumed as a moral certainty in art, *that the application of every scientific principle is practicable to the extent that is necessary to its full operation*, and the writer is so fully satisfied that he can apply the proposed improvement to all the square-sails of a common ship, with precision and simplicity, upon mathematical and nautical principles, that he would undertake by his method to make any good common ship sail better, both by and large, or before the wind, and with less canvas than she can now sail; and he offers this challenge to the British navy, to be tried by any impartial arrangement either between two ships, or upon the same vessel.

A full and fair trial, and the developments of practice, would refute or obviate all objections, *which until tried, must be deemed equally as problematical as the plan itself, and therefore trial only should decide the question of its practicability.*

The power of steam in stemming both wind and tide, in dispensing with the power of wind, and in adding velocity to that of canvas, having lately made a large encroachment upon the ancient dominion of the sail, it is proper and becoming for the advocates of the sail, which must ever predominate on the broad scale of navigation, for purposes of war and commerce, to reduce the arch of the mariner's compass from which common ships are now excluded. It contains six points on each side of the wind, besides about a point of leeway, making fourteen points on both tacks, which are equal to an angle of one hundred and fifty-seven degrees and a-half, out of the measure of two right angles, or one hundred and eighty degrees, that are contained in half the compass or horizon. This is the true *mare incognitum*, which it is more important to penetrate than the polar ocean, but which the common ship has hitherto vainly pretended to enter, and almost without gaining on the wind, for never until the terms *wind-bound* and *embayed* shall have become obsolete, will square-rigged ships possess adequate powers.

For want of this improvement, British property to an immense amount was annually captured in the English Channel during the whole course of the late wars, chiefly in consequence of the unfitness and inability of British gun and cutter brigs to chase French luggers when close-hauled upon a wind: our cruizers were therefore reduced to the necessity of suffering the enemy to make captures on our coast, and of trusting to their chance of intercepting the French luggers or their prizes near the French coast, where, on approaching harbours, the enemy was often obliged to sail with a free wind, which gave our cruizers an opportunity of closing with them. This practice subjected British officers to the imputation of *cruizing for salvage*, and not to prevent capture, but it was caused by the defects of their vessels, and not by any want of zeal in

in our officers. The proposed plan would supply the British navy with a superior sort of cruizer, to prevent in future wars a renewal of such disgraceful depredations in the Channel, which, in the first three months of the year 1810 alone, amounted in value to near half a million sterling. It would also protect British trade in the straights of Gibraltar from Spanish gun-boats, which have continually captured British ships, even within a few miles, and in sight of British cruizers laying at the rock, as they were unable to work to windward against the prevailing westerly wind, in time to intercept either the gun-boats or their prizes; it is this defect of our cruizers that greatly diminishes the value of Gibraltar as a naval station, the only value it has, except that of a smuggling dépôt, and the negative importance, that if it were possessed by the Spaniards, they would then command the straits during a *levanter* or east wind, as they now do from Algezieras during the prevailing westerly wind. It was even reported and credited in that garrison, during the late war, that the above-mentioned inability of our cruizers to intercept the enemy, had led to a tacit understanding between us and the enemy, that the garrison should not fire at a Spanish gun-boat when in chase of a British ship, unless the latter should have anchored within gun-shot of the garrison before she was taken; and in return, the Spanish gun-boats were not to fire on the town of Gibraltar.

Though the author thus appeals on behalf of neglected science, fettered art, impeded commerce, baffled enterprize, and of hazarded lives and plundered property, yet he is not so sanguine as to expect that he can by any effort introduce this principle into the equipment of the British navy. A century elapsed between the proposal and the adoption in the Royal Navy of copper-sheathing, though the inventor, or at least the first advocate of that great improvement, was Pepys, the secretary to the Admiralty under Charles II., and therefore a century and a-half at least must elapse before the proposed principle of a ship-lugger will be adopted in the British navy, because it is the invention of an unprivileged civilian. France, or the United States of America, will probably precede this country in the adoption of the principle, but there may be some hope that so soon as it can be copied from a French model, it may be legitimately fit for our navy.

London, J. MILLER.
9, *Southampton-Buildings, Holborn,*
1*st June* 1824.

ORIGINAL NOTES *on* VAN DIEMEN'S LAND.

THE climate of Van Diemen's Land corresponds more nearly with that of France near Bourdeaux, than with the climate of any other portion of Western Europe, making allowance for the difference between the insular character of the former, and the continental influences to which the latter country is subject.

The atmosphere of Van Diemen's Land is in general dry, and very little subject to mist or fog; the latitude being one of variable winds, the weather is of course changeable, but not at all in those sudden or severe extremes that are injurious to health; rain is occasional and not periodical; a fall of snow in the vallies is a rare occurrence, and what little falls there, immediately dissolves, though it remains visible for a considerable time on the tops of mountains, some of which are 3,800 feet high; hail is not frequent, and is as usual local; thunder and lightning are rare, and the latter is not particularly dangerous.

The soil of those parts which have been surveyed and appropriated, is in general a fine deep loam, and very fertile, producing wheat and potatoes in the greatest perfection, the latter of which have been found in good preservation after a voyage to England. Barley and oats have not yet been extensively tried; the common garden roots and vegetables of England succeed well, but the settlement of the country is perhaps too recent to enable an opinion to be formed of the production of European fruits, though many of them can hardly fail to succeed. The natural grass is abundantly nutritive for sheep, horned cattle, and horses; sheep thrive well and increase fast, having extensive ranges of pasture, and being fond of uplands, which in that island are in general free from trees and brush-wood: it is in the vallies that forest-trees chiefly abound, but not universally, many fine vales and plains being without wood. Horned cattle are rather scarce and dear in comparison with sheep; horses are tolerably numerous, the race being much improved at Port Jackson and Sidney, from whence they are conveyed to Van Diemen's

Diemen's Land. Pigs and poultry are abundant.

Almost all the good lands in the parts that have been surveyed, *viz.* on the line of road between Hobart's Town and George Town, have been allotted and granted away by the crown to settlers, but it should not be hence inferred that those large appropriated tracts are inhabited. It is expected, upon completing the survey now in progress of the north-western quarter of the island, that large tracts of finely diversified and fertile land will be at the disposal of the crown. From what little is already known of that quarter, it promises better than the north-eastern, in which there is a considerable portion of sandy sterile land. No swamps or morasses have been discovered, to the absence of which may in part be attributed the salubrity of the country.

Only two rivers of any considerable magnitude have been as yet explored, namely, the Derwent, which discharges itself below Hobart's Town at Port Dalrymple on the south side of the island, and the Tamar, on the east bank of which George Town is situated, a few miles above the point of its entering the sea on the north coast. The Derwent is navigable for about twenty-five miles, the Tamar for about half that distance; these, although affording the best harbours in the island, especially the former, are rather shallow, the tides only rising about seven or eight feet. Besides these, there are many streams fit for mill-seats, and an abundance of fine springs of water throughout the island.

Hobart's Town is laid out in streets at right angles, and has a neat church; the houses are built of stone and bricks, and roofed with tiles or wood; the bricks and tiles are made in a rough way, and burned by means of the brush-wood; the lime is often made of shells, but stone-lime may be obtained. It is difficult to form an opinion of the expense of building a house of these materials, though it must be considerable in proportion to the accommodation, the price of labour being high, *viz.* a dollar per day for common labour, and two dollars for mechanical labour.

George Town is a promising village, but does not yet contain more than fifty families, if so many. No accurate opinion can be formed of the population of the interior, except by persons in authority, who can refer to documents, and houses being as yet few in the interior, they do not catch the eye of a traveller. The reason of this is, that the settlers, for some time after they are located, live in huts constructed of a kind of wood which abounds in the country, and is well adapted to form these huts and field fences, as it splits well.

The distance between Hobart's Town and George Town is about one hundred and fifty miles: the road is in progress of being finished as a regular carriage way, but is passable at present by gigs, and it is said that carriages for burthen have made the journey. The best land on that line of road is at Launceston, which is about forty miles from George Town; there is great diversity in the face of the country through which this road passes, and in some places lakes are interspersed.

A settlement has been formed by Government at Port M'Quarrie on the west coast, where the worst description of convicts is kept in employment under superintendents; the country between that settlement and Hobart's Town is very little known, and has not yet been surveyed. It is not probable that Port M'Quarrie will ever be a considerable place, as the port, though spacious within, is so shallow at the entrance that it admits only small vessels; it is indeed said in its favour, that coals have been discovered near it, in great abundance and of good quality: but the coals found at Sidney in New Holland are so easily worked and of so excellent a quality, that it is likely they will supply Van Diemen's Land.

A settlement is also contemplated, if not commenced, at Bathurst Bay, on the southern coast, to the westward of Port Dalrymple. Some allotments have also been made of lands at the head of Oyster Bay, which lies to the eastward of Port Dalrymple, and near the south-eastern extremity of the island; but Oyster Bay affords no shelter to shipping; and, the soil not being remarkable for goodness, those allotments have much disappointed the grantees.

The principal pursuits, by which the settlers subsist and propose to provide for their families, are of course agriculture, and the progressive improvement and settlement of their lands. New settlers are much assisted by Government, as they receive, on being located, a few heads of cattle and sheep, and are allowed rations of provisions for themselves, their families, and dependents during the first six months, which

is considered long enough to enable the settler to get a crop (generally of potatoes) off the ground; but this privilege of drawing rations is restricted to the first settlers upon lands granted by the crown, who are subject, by late regulations, to the condition of taking into their service, for a limited term of years, one convict for every one hundred acres, being twenty convicts for two thousand acres, which is the extent of land usually granted to each person who is possessed of five hundred pounds. The settler is, however, bound to pay wages to each of these convicts, at the rate of three and sixpence per week, and to find them in certain necessaries, and also in food, after the rations have ceased; in return for which, he has the benefit of the labour of the convicts in clearing, fencing, and cultivating his lands; and the grantee of the crown is prohibited from selling the land, or any part of it, during the period of five years next after the date of the grant. These conditions are considered by many to be too burthensome and inconvenient for new settlers of small capital, contending with the difficulties of emigration, and who, on taking possession, may have but a small part of their capitals in ready money; therefore, an opinion prevails, that, although it is prudent for a settler to go out provided with a license for a grant of land from the crown, it may be often more expedient to purchase from individuals land that is part of the earlier grants made before those recent conditions were established, or that has become free by the lapse of years,—of which free land there is a sufficiency on sale from time to time. The prices of free land vary so much, according to situation, quality, and degrees of improvement, that an average price cannot be given with any accuracy; but no time is given for the payment of the purchase money by instalments, as is usual in the United States of America.

The Government, having to provide rations for new settlers. and also for public officers and the garrison, is therefore the best customer of the farmer. Merchants, however, do accommodate the land proprietors with goods upon credit of the growing crops. Wheat and wool, and live stock, at present yield the principal part of the surplus produce; but it is likely that hemp and tobacco, and the vine, may be successfully cultivated. The wheat has been sent to Brazil, and met a good market, though the great distance of that country enhances the freight, and increases the danger of its being damaged on ship board. It cannot now be sent to the British settlements in India, nor can any return cargo be received from thence, under the exclusive regulations of Indian trade. Wool is so bulky an article, that the freight and other expenses on its conveyance to England, leave little chance of profit by sales made in competition with Spanish and Saxon wools.

The import trade is chiefly carried on at merchants' stores: there are, however, retail shops for dry goods in Hobart's Town, besides those of butchers, bakers, &c. In general, the prices of British articles are enhanced at least fifty per cent., and in some instances much more, according to scarcity, including the local import duties, which are very moderate, except the duty on spirits, that being ten shillings per gallon; but home-made spirits are subject to a duty of only two and sixpence per gallon, and local distilleries may answer well.

In Hobart's Town there is a sufficiently large circle of educated persons to make residence agreeable; and there are instances of single families there, and in some few other places, whose society is highly eligible. Still there always exists a spirit of exclusion and assumption among official and military persons in foreign dependencies, which is disagreeable to the feelings of a private gentleman; and that spirit naturally prevails where so large a portion of the inhabitants are exceptionable, from being under the stigma and interdict of past or pending legal sentences. The state of female manners and morals in Hobart's Town is, with few exceptions, such as leaves society as yet without a sufficient admixture of the best source of refinement.

The most eligible plan for emigrating to Van Diemen's Land, is, for a few families, in competent circumstances, to join in applying for the usual grants of land, which are to be obtained without influence, and then to engage fourteen or fifteen Scotch or Irish farming labourers, including a few country mechanics with small families, to accompany them. These should be engaged to do the works of the projected settlement, on condition that each individual shall receive a certain portion of good land on the expiration of a fixed term of service, with subsistence and clothing for himself

himself and family in the mean time. The price of passage from England is usually from seventy to eighty pounds for each cabin passenger, and about forty guineas for each steerage passenger. It is advisable for the emigrant party to take with them in hard dollars as much of their property as they can reserve from necessary expenses. They must, however, carry with them an adequate supply of clothes, made up and in the piece, beds, bedding, linen, domestic utensils, agricultural, gardening, and dairy implements; furniture in *frame*, to be put together on being located, with tools, &c., for mechanics; a light waggon and a few light carts, with geer and harness; a horse-mill, and sifters to grind corn and prepare meal and flour; a still and apparatus, books, fire-arms, fishing-tackle, medicines, wines and spirits; the doors, window-sashes, locks, grates, and fittings of cottages, barns, &c., besides those other articles which will occur without being recapitulated.

After landing, they should take some little time to be advised, and to determine whether, and in what district, they should take out grants for their allotments of lands; or should prefer purchasing free land from individuals exempt from the condition of paying and maintaining convict labourers. Upon these points, they may obtain the benefit of the minute local knowledge of the official surveyor, which may be had for the usual well-merited gratuity.

There is good authority for stating, that a small establishment of steam packets, between the ports of New Holland and those of Van Diemen's Land, would be a lucrative concern.

To the Editor of the Monthly Magazine.

SIR,

A VERY elegant and beautifully-executed mural tablet has recently been erected in the Great Meeting in Leicester, to the memory of the late Dr. Alexander, of Danett's Hall, of whom a brief memoir appeared in your Magazine for March 1823. The enclosed is a correct copy of the inscription, at your service for insertion. Those who, like myself, knew the character it commemorates, can deeply feel the truth of this interesting sketch.

Leicester, I remain, Sir, yours,
20th July 1824. S. W.

SACRED to the MEMORY of
EDWARD ALEXANDER, M.D.
Of Danett's Hall, near Leicester,

Remarkable for purity and simplicity of Character,
For Piety to GOD, and disinterested Love of Man;
His whole Conduct exemplified the Two Commandments,
On which "hang all the Law and the Prophets."
As an able and conscientious Physician,
And in prompt and gratuitous Services to the Poor,
He has rarely been equalled.
Blessed with vigorous Faculties and ardent Feelings,
His Benevolence, expansive as his Mind,
Shed its Balm on all within the Sphere of his Influence.
He was a firm Opponent of Despotism, public and private,
A fair Advocate and generous Supporter
Of Civil and Religious Liberty.

This cold Marble may record his admirable Qualities,
But their due Appreciation must be sought
In the Hearts of those whom his Affection delighted,
His Friendship gratified, his Bounty relieved,
And his Skill restored to the enjoyment of Ease and Health.
It pleased GOD to arrest him in his Medical Career,
In the Month of June 1810,
As one "of whom the World was not worthy."
Also, to visit him with long and excruciating Suffering,
Which he bore with unshaken Fortitude and Resignation,
In full hope of a joyful Resurrection through CHRIST,
He died 27th November 1822, aged 55;
Was deposited the 5th December within St. Mary's Church,
In the Vault belonging to his Place of Residence.
In this Chapel he worshipped,
And here is erected this Monumental Tablet,
By his faithful, affectionate, and devoted Widow.

For the Monthly Magazine.

THE LADIES.

[Translated from the French.]

THE critics of the fair sex tell us they are vain, frivolous, ignorant, coquettish, capricious, and what not. Unjust that we are! it is the fable of the Lion and the Man. But since the ladies have become authors, they can take their revenge, were they not too generous for such a passion. Though they have learned to paint, their sketches of man are gentle and kind.

But if the ladies were what surly misanthropes call them, who is to blame? Is it not we who spoil—who corrupt—who seduce them?

Is it surprising that a pretty woman should be vain, when we daily praise to her face her charms, her taste, and her wit? Can we blame her vanity, when we tell her that nothing can resist her attractions,—that there is nothing so barbarous which she cannot soften,—nothing so elevated that she cannot subdue? when we tell her, that her eyes are brighter than day,—that her form is fairer than summer,—more refreshing than spring,—that her lips are vermillion,—that her skin combines the whiteness of the lily with the incarnation of the rose?

Do we censure a fine woman as frivolous, when we unceasingly tell her, that no other study becomes her but that of varying her pleasures; that she requires no talent but for the arrangement of new parties,—no ideas beyond the thought of the afternoon's amusement? Can we blame her frivolity, when we tell her that her hands were not made to touch the needle, or to soil their whiteness in domestic employments? Can we blame her frivolity, when we tell her, that the look of seriousness chases from her cheek the dimple in which the Loves and the Graces wanton; that reflection clouds her brow with care; and that she who thinks, sacrifices the smile that makes beauty charm, and the gaiety that renders wit attractive?

How can a pretty woman fail to be ignorant, when the first lesson she is taught is that beauty supersedes and dispenses with every other quality; that all she needs to know, is that she is pretty; that to be intelligent, is to be pedantic; and that to be more learned than one's neighbour, is to incur the reproach of absurdity and affectation?

Shall we blame her for being a coquette, when the indiscriminate flattery of every man teaches her that the homage of one is as good as that of another? It is the same darts, the same flames, the same beaux, the same coxcombs. The man of sense, when he attempts to compliment, recommends the art of the beau, since he condescends to do with aukwardness what a monkey can do with grace. With all she is a goddess, and to her all men are equally mortals. How can she prefer, when there is no superiority; or be constant, when there is no merit?

Is she capricious? Can she be otherwise, when she hears that the universe must be proud to wait her commands,—that the utmost of a lover's hopes, is to be the humblest of her slaves,—that to fulfil the least of her commands, is the highest ambition of her adorers?

And are men so unjust as to censure the idols made by their own hands? Let us be just; let us begin the work of reformation. When men cease to flatter, women will cease to deceive; when men are wise, women will be wise to please. The ladies do not force the taste of the men; they only adapt themselves to it. They may corrupt and be corrupted;—they may improve and be improved.

To the Editor of the Monthly Magazine

SIR,

I HEREWITH transmit you an account of the "St. Alban's Literary Society," relying on your well-known candour and impartiality for inserting it, and feeling assured, that the extension of knowledge and the general improvement of mankind are the sole objects of your invaluable magazine.

The St. Alban's Literary Society was established in July 1823, and is therefore, at present, in a state of infancy. It has for its object the investigation (by means of lectures, essays, discussions, readings, and conversations) of subjects connected with moral and natural philosophy, literature, and political economy, under the following restrictions; *viz.* that no subject of controversial theology, or of party politics, shall be introduced. The utility of the clause will be instantly perceived, as it not only upholds the dignity of the society, but prevents that acrimony and bitterness of spirit to which the hackneyed subjects of theological discussion so directly lead. It is governed by a president, who is chosen quarterly, and a treasurer and secretary, who are elected at the annual meeting. Any person,

person, desirous of entering the society, is recommended by a member from personal knowledge as eligible for admission: the member delivers his recommendation in writing to the secretary, who submits it to the earliest meeting of the society; on which they proceed to ballot, when two dissentients exclude the applicant. The meetings of the society are held every alternate Thursday evening, at eight o'clock precisely; when the subjects, having been previously announced, are immediately entered upon. The delivery of a lecture is limited to two hours, and a discussion must not at one time extend beyond three. No member is allowed to speak for more than forty minutes, or twice in one evening, except in explanation; but the opener is entitled to a reply.

I have taken the liberty of transcribing the subjects before the society for the existing quarter, *viz.* from the 29th of July to the 7th of October.

ESSAYS.

1. On the Ravages of Time.
2. On Female Heroism.
3. On the public Spirit of the Roman and British People.
4. On the love of Life.
5. On Contentment.

DISCUSSIONS.

1. Are the mental powers of the sexes equal?
2. To what cause may the downfall of nations principally be attributed?
3. Is the unlimited freedom of the press desirable?
4. Ought the disabilities under which the Roman Catholics labour to be removed?
5. Ought crimes, unattended with personal violence, to be punished with death?

These, Sir, are the leading features of the society; and it would be a useless task were I to occupy your pages by any laboured eulogy on its beneficial influence. It speaks for itself; and I sincerely hope that institutions of a similar nature may spread universally—that the unlimited freedom of inquiry may be exerted,—that men may cease to become the dupes of the designing,—that they may think and act for themselves, and, maintain their rights with firmness and with dignity.

St. Albans, J. HARRIS, Jun.
1st September 1824.

MACADAMIZING *versus* STREET-PAVING.

To the Editor of the Monthly Magazine.

SIR,

YOUR last number contains a few sensible remarks, by Mr. T. Single on the subject of street-paving, which at present occupies, and in a great measure divides, the public opinion. It would appear truly unaccountable that this branch of our civil economy should have been so long misunderstood or wilfully perverted, were it not notorious, that all such departments of public duties are subject to the controul of select vestries, boards, committees, or whatever other title the parties may assume: such committees consisting usually of a few active individuals in each parish or district, who cannot be supposed to be totally exempt from a wish to serve their own immediate friends whenever an opportunity occurs.

That this has been the primary cause of the shameful mismanagement of the street-pavement of the metropolis for many years past cannot for a moment admit of doubt. And the consequence has very naturally followed the cause,—the parties, who have been favoured with the contracts for such parish jobs, have, in almost every case, made the most of them by executing the work in a negligent, and oftentimes a scandalous, manner. It is not necessary to mention instances; they abound in different parts of the metropolis, where the pavement is in a disgraceful, and frequently in a dangerous, state; yet there appears to be a continual repair going on in these places.

In order to understand how such anomalous proceedings can go hand in hand, it will be necessary to examine briefly of what materials our street-paving consists.

Mr. Single, in his paper, has stated some of the evils which arise from the bad workmanship of paviours, but not all. He very justly says, that "in order to place the paving stones of different sizes together in the same mass of paving, they are obliged to scratch away the loose ground below, till the upper face of the stones become nearly horizontal, when the rammer is applied to cover all the defects beneath, so that, in fact, the present system of paving is nothing more than putting the ground into a state of hard and soft, or hills and holes, and placing stones upon it to prevent our seeing or believing that it is so."

Mr. Single then recommends, very judiciously, that all paving-stones should be reduced to nearly the same size, in order to produce a good firm pavement; and that instead of loosening the soil below, as in the usual bungling way of

paving, the ground should be previously rammed as hard as may be before the stones are placed. But Mr. S. should also have advised, that paving stones be placed in as *close contact* as possible. For it is well known that the admission of water between the stones is one of the principal causes of their becoming loosened almost immediately the pavement becomes deluged by rain.

This must be so obvious as scarcely to require explanation; for if any portion of the sand used by paviours be soluble in water (and, from the rubbish employed frequently for this purpose, at least one-half of it must be soluble), it will evidently be washed out from the interstices of the pavement, leaving the stone in a bed of quagmire.

It should also be observed, that the *system* on which these job-contracts are taken—that of paving so many square feet at a given price—offers a direct temptation to the paviour to substitute the cheapest materials for the best, without any regard to the accommodation of the public, or the durability of the work: indeed, this interest is promoted by the frequency of the necessary repairs; consequently he takes care, like the leasehold builder, not to render his work too durable. And as rubbish, brick-dust, sand, &c. are far cheaper materials than granite paving-stone, the less of the latter substance in every hundred feet of pavement the better. There is an immediate saving of twenty or thirty per cent., and provision made for another job the ensuing year, instead of waiting three or four years for "a consummation so devoutly to be wished!" To be serious. The scandalous manner in which these tradesmen execute their contracts, though notorious to every observer in the metropolis, has been permitted from year to year, *for some reason or other*, to the entire disgrace of the heads of parishes and the local police. However, like most other evils, this great nuisance to the inhabitants (especially to the proprietors of horses and vehicles of any kind) is rapidly abating; not in consequence of the liberality or vigilance of the *managing parties* of districts, but in consequence of the talents and perseverance of an enterprizing North Briton!

It is notorious that, even at the present day, when experience has demonstrated, as clearly as any proposition in Euclid, that a good, firm, hard roadway may be advantageously made in every tolerably wide street, that doubts and queries are continually started as to its eligibility! The plan of road-making adopted Mr. McAdam is far from being any visionary scheme, and is intelligible to every man of the most ordinary capacity, who does not wilfully shut his eyes. The principle is simply this: to have the substratum made very nearly level, or just sufficient for the water to drain off; to have the road-material of the hardest stones which can be procured; to break such stones down to one uniform size, in order that no unequal interstices may be left between them when embedded together; and to exclude the use of rounded gravel, and the loam, sand, or clay with which they are usually combined. The angular fragments of the broken stones serve to keep them firm in their place, whilst the pulverized matter from the friction on the surface fills up the interstices with the best kind of cement. For want of these angles, it must be obvious that the rounded or diluvial gravel, usually dug from gravel-pits, cannot bind firm, but when exposed to wet, acting on the loam, &c. will invariably form a loose or shifting mass, which must be continually liable to fall into holes or inequalities, according to the hardness of the substratum on which it rests.

What has been called McAdam's system (perhaps with some justice, as a compliment to his perseverance in following it up in defiance of all the interested opposition he has experienced), is in reality nothing more than that of preventing water from gaining access to the materials of the road, and using materials of the very best kind, instead of the compost of sand, clay, and chalk, called road-gravel; or of substituting the softer varieties of limestone or sand-stone.

It is, I believe, one of the maxims of Mr. McAdam to recommend the purchase of the best material, at almost any price, as a measure of ultimate economy. It is however very easy to perceive, that if any gentleman who happens to have a bed of inferior gravel on his estate, also *happens* to be a trustee or commissioner of turnpikes, that the virtue of such commission would probably transmute the gravel (containing thirty or forty per cent. of loam) into a *better* material for road-making than hard limestone, iron sandstone, or granite dug from a quarry out of the pale of such commission.

Another

Another advantage, which Mr. McAdam appears to possess over most other road-makers, is that of being able to judge where good materials are likely to be obtained, by sinking a certain depth below the soil. And in a case where his hands have been unfettered by any of the local considerations abovementioned, he has converted, what was formerly one of the worst pieces of road between any two opulent cities, into one of the finest in the whole kingdom: I mean the twelve miles between Bath and Bristol. The soft Oolite stone which forms the surface of that district being a miserable material for road-making, the height of a hill was reduced; at the same time an abundance of very hard iron sandstone was procured, equal, if not superior, in some respects to granite.

With regard to the superior economy of employing this latter substance for road-making in London streets, there can be no doubt; the old paving stones furnishing a surplus quantity for the improved system. But there is probably greater durability and less dust from the use of flint, if that material can be obtained in sufficient quantity. I fully agree with your correspondent Mr. Single, that (if paving the carriage-way of our streets be at all necessary) granite is the best material we can use; but I differ from him in his conclusion against the new system applied to narrow streets. He says, "it will not do where there is much traffic, from the frequency of opening the ground in order to repair the water and other pipes." But he surely must admit that excavations can be filled up with the broken stone *à la* MacAdam in a fourth part of the time and with half the nuisance to passengers, that attend the job-contract-system of paving.

The chief objection to laying gravel instead of pavement in a narrow street, is the ruts which are liable to be cut by carriages following each other in the same track. This, however, might be in a great measure avoided, by having a vigilant and civil resident-inspector or street-keeper, to see the road always kept in good repair, by scraping and moderate watering, and superintending the carriage traffic of the streets.

The progress of this decided improvement to the metropolis is now, in spite of all the opposition of "vested interests," corporate and parochial, making very rapid strides; and I have no doubt the experience of seven years will make us blush for the passive obedience, which has been heretofore conceded by a generous public to the local jurisdiction of a few parish or district dictators. I shall conclude by citing one instance as a proof whether the street pavements of the metropolis were formerly done as well as they might have been:—That fine area Lincoln's-Inn-Fields, instead of being gravelled, is now nearly new-paved, in a manner vastly superior to any work of that kind previously performed. Should not the opulent inhabitants of that square erect a statue in honour of McAdam? OBSERVATOR.

To the Editor of the Monthly Magazine.

SIR:

I HAVE no doubt that many of your readers have been led to smile on reading the communication of F. L. Williams, who, in your Number for August, has been induced to "record," for the information of the ignorant, and to place, *for the first time*, (as he imagines), before the public eye, certain grave matters touching the remains of a Roman encampment in the neighbourhood of Islington. It is certainly very kind in F. L. W. to take so much pains in "affording light" to those dull plodding wights, "the writers of topographical and local histories," and to warn them against falling into errors in their archæological researches—a task to which he is no doubt fully competent. It would, moreover, have been quite as well if he had at the same time given credit to some of them for the information, which I shrewdly suspect, he has derived from their labours, exclusive of the "chief incidents" furnished by his good friend Dr. W. O. Pughe, the Book of Nennius without a title, and the superlative authority of "the Tragedy of Boadicea."

The fact is, the remains of the camp, supposed to be that of Suetonius Paulinus (whom F. L. W. designates Paulus Æmylius), are well known to every one conversant in the topography of the metropolis, and have been described in various publications. An engraving of the spot, under the name of the *Reed Moat Field*, which is the general appellation of the place, was published by J. P. Malcolm, in the year 1796; and another, by myself, in a description of the parish, in 1811. To show the readers of the Monthly Magazine how

how much they are indebted to the information of F. L. W. on the score of *originality*, I have given the subjoined extract from the second edition of "The History and Antiquities of Islington," published in 1823.

"Battle Bridge is supposed to have been so called from its contiguity to the spot where the celebrated battle was fought between the Roman General Suetonius Paulinus, and Boadicea, Queen of the Iceni, A. D. 61; and there are circumstances that seem to make in favour of this opinion. A place on the river Derwent, in the East-Riding of Yorkshire, is called by this name, from its having been the scene of a *battle* between Harald Haardred, the Norwegian, and Harold, King of England, just before the arrival of William the Conqueror. The town of *Battle*, in Sussex, also derived its name from the *battle* fought there between the two princes last named."—(*Camd. Brit.—Etym. Ling. Angl.*)

The operations of the Roman General in his arduous contest with the injured and unfortunate Boadicea, were, it is most probable, confined to the north or north-western vicinity of London. Tacitus, who had the most authentic information as to the affairs of Britain, informs us, that after Suetonius had abandoned London as untenable by the small army under his command, he was determined on hazarding a battle, and for that purpose waited the approach of the enemy. No situation in the neighbourhood of the capital could afford a more advantageous position than the high ground in the vicinity of Islington, both in regard to security and as a post of observation, for an army apprehensive of an attack from an immense superiority of force.

The opinion, that the scene of this dreadful conflict was not far distant from this spot, is strengthened by the remains of an encampment, which may yet be seen in the immediate neighbourhood, and which exhibit sufficient evidence that the situation was upon some occasion an important military post at a very remote period. In a field, called the *Reed Moat Field*, a little to the north-west of the workhouse, part of a camp, evidently Roman, and generally supposed to have been the position occupied by Paulinus previous to his engagement with the Britons, may still be traced, though its more prominent features have been lately destroyed by the digging for clay and gravel. These remains consist of a prætorium, &c.,* which, in situation, form, and size, corresponds exactly with the description of the General's tent, as given by Polybius (book vi), in his account of the Roman method of castrametation. The site of the prætorium is an exact square of about 200 feet, the area within the entrenchment being a quadrangle of about forty-five yards. The surrounding *fosse* varies in breadth from twenty to thirty feet, which irregularity has been occasioned by encroachments upon the embankment. The *fosse*, which is about ten or twelve feet deep, is for the most part filled with water, and overgrown with sedge.

In the encampment of a Roman army, the General's tent always occupied the most convenient place for prospect and command; so the situation of this prætorium is on an elevated spot, embracing an extensive view over the adjacent country on all sides. To make it more convenient in this respect, the side from whence the view was least commanding, has been raised by art, and presents a bolder embankment; and there is a visible ridge across the middle of the area where this elevated part begins. Here is also a raised breast-work or rampart, extending for a considerable length on the western side of the prætorium, and another on the south. The position occupied by this camp, supposing it to have been that of Paulinus, will be found strikingly advantageous, when it is considered that the enemy was expected to make the attack from that side next to the metropolis."

It is probable that this was the first place of security to which Paulinus retired to unite his scattered forces, and upon which occasion this camp was formed, for it was customary with the Romans to intrench themselves though they remained but a single night in a place. The description Tacitus gives of the scenes of his operations is very narrow and confined. "*Deligitque locum arctis faucibus et a tergo silvâ clausum; satis cognito nihil hostium, nisi in fronte, et apertam planitiem esse, sine metu insidiarum.*" But the great scene of carnage appears to have been between a couple of eminences: "*Angustias loci pro munimento.*"†

It is not unlikely that the Roman General abandoned the above encampment, on finding the disparity of his force compared with that of the Britons with which he had to contend, and fixed upon the narrow spot of ground as best calculated for his little army to act with advantage. The situation of the valley that lies between the acclivity of Pentonville and the high ground about Gray's Inn Lane, though now for the most part obscured by buildings, will not, on inspection, be found any thing at variance with the above description of Tacitus; and in the absence of all direct historical proof, an opinion, supported

* A reference is here given to a plate accompanying the description.

† Tacit. Ann. Lib. xiv. c. 34.

ported by concurring circumstances and strengthened by long tradition, may be fairly assumed, that the scene of action was confined to the immediate vicinity of Battle-bridge.

It is certain that the Romans, from their first invasion of Britain, were assisted by *elephants* in their battles with the aboriginal inhabitants. Polyænus relates, that Julius Cæsar, in forcing the passage of the Thames, had recourse to the stratagem of placing one of these animals in his front, bearing some archers and armed men upon his back. The Britons, astonished at the sight of such a stupendous beast, were struck with dismay, and precipitately fled from their posts.* The circumstance of the skeleton of an elephant having been many years ago discovered on digging in a field at Battle-bridge, by "a great searcher after antiquities,"† affords some confirmation to the opinion, that this was the spot where Paulinus gained his great victory over the army of Boadicea.

A detailed account of this battle, which forms a very prominent feature in the early annals of our country, is given in the topographical work I have before mentioned, extracted chiefly from the Annals of Tacitus and the History of Dio Cassius, lib. lxii. c. 1-12.

I am, &c.

Islington, J. Nelson.
Aug. 31, 1824.

For the Monthly Magazine.

On the PRESERVATION *of the* COPPER-SHEATHING *of* SHIPS.

THERE is scarcely any single department of practical science so pregnant with interest to a maritime nation like Great Britain, as the recent discoveries made by that illustrious chemist Sir Humphry Davy, applicable to the preservation of the copper-sheathing of vessels from corrosion. The expenditure, occasioned by the rapid destruction of the sheathing of his Majesty's ships, alone forms a very considerable item in the naval department of the public service. But the loss to the country from their decay bears but a small proportion, during time of peace, to the aggregate loss sustained by the mercantile interests, from similar causes. Indeed the very considerable expense of copper sheathing, added to its rapid decay, serves to prohibit its use in numerous instances, notwithstanding the additional security it gives to a ship, by preventing the opening of her planks, and consequent leakage, in bad weather. But in spite of this expense and sacrifice, every ship destined for navigating the tropical seas, if not protected by sheathing, in a very short period becomes perforated through the bottom by the innumerable marine animalculæ which abound in the warmer latitudes. It would perhaps be an interesting inquiry to many persons concerned, to compute the annual loss which the ship-owners of this great maritime nation sustain, from the corrosion and destruction of copper-sheathing; but although the amount must be obviously very great, it would encroach too much upon your miscellaneous columns to enter into such investigation. I shall therefore proceed to give your readers an abstract of the valuable researches of Sir H. Davy, which promise to lead to the most important results in the preservation of shipping. The president, in the communication of his important researches on this subject, to the Royal Society, after alluding to the rapid decay of the sheathing of the ships in his Majesty's service, observes:

It has been generally supposed that sea-water had little or no action on pure copper, and that the rapid decay of the copper on certain ships was owing to its impurity. On trying, however, the action of sea-water on two specimens of copper, sent by J. Vivian, Esq. to Mr. Faraday for analysis, I found the specimen which appeared absolutely pure, was acted upon even more rapidly than the specimen which contained alloy; and on pursuing the inquiry with specimens of various kinds of copper which had been collected by the Navy Board and sent to the Royal Society, and some of which had been considered as remarkable for their durability, and others for their rapid decay, I found that they offered only very inconsiderable differences on their action upon sea-water; and consequently the changes they had undergone must have depended upon other causes than the absolute quality of the metal.

Sir Humphrey then describes the chemical agency between sea-water and a sheet of copper as follows:

When a piece of polished copper is suffered to remain in sea-water, the first effects observed are a yellow tarnish upon the copper, and a cloudiness in the water, which takes place in a few hours. The hue of the cloudiness is at first white, it then changes to green. Within a day a blueish green precipitate appears at the bottom of the vessel, which constantly accumulates, at the same time the surface of the copper corrodes,

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* Polyænus, lib. viii.
† Seymour's Surv. Lond. vol. ii. p. 869.

corrodes, appearing red in the water, and grass-green where it is in contact with the air. Carbonate of soda gradually forms upon this grass-green matter, and these changes continue until the water becomes much less saline. The green precipitate, when examined by the action of the solution of ammonia and other tests, appears to consist of an insoluble compound of copper (which may be called a hydrated sub-muriate) and hydrate of magnesia.

According to the views which I developed fourteen years ago, of the nature of the compounds of chlorine, and which are now generally adopted, it is evident that soda and magnesia cannot appear in sea-water by the action of a metal, unless in consequence of an absorption or transfer of oxygen. It was therefore necessary, in order to produce these changes, that water should be decomposed, or that oxygen should be absorbed from the atmosphere. I found that no hydrogen was disengaged, and consequently no water was decomposed: the oxygen of the air must therefore have been the agent concerned, as appeared subsequently by numerous experiments.

Copper placed in sea-water, deprived of air by boiling or exhaustion, and exposed in an exhausted receiver, or in an atmosphere of hydrogen gas, underwent no change whatever. But an absorption of atmospheric air was shewn, when copper and sea-water were exposed to its agency in close vessels.

Sir Humphrey, after referring to the principles of chemical and electrical agency, which he developed twelve or fourteen years ago by his beautiful experiments on the alkalis, farther observes:

Copper is a metal only weakly positive in the electro-chemical scale, and, according to my ideas, it could only act upon sea-water when in a positive state, and consequently, if it could be rendered slightly negative, the corroding action of sea-water would be null; and whatever might be the differences of the kinds of copper sheathing and their electrical action on each other, still every effect of chemical action must be prevented, *if the whole surface were rendered negative*.....I began with an extreme case. I rendered sea-water slightly acidulous by sulphuric acid, and plunged into it a polished piece of copper, to which a piece of tin was soldered equal to about one-twentieth of the copper. Examined after three days, the copper remained perfectly clean, whilst the tin was rapidly corroded. No blueness appeared in the liquor: though in a comparative experiment, when copper alone and the same fluid mixture were used, there was a considerable corrosion of the copper and a distinct blue tint in the liquor. If one-twentieth part of the surface of tin prevented the action of sea-water, rendered slightly acidulous by sulphuric acid, I had no doubt a much smaller quantity would neutralize the action of sea-water, when depending only on the oxygen contained in common air. And on trial, I found that one two-hundreth part of tin in proportion to the copper was sufficient to prevent the corrosion of the latter.....In pursuing these experiments, and applying them in every possible form and connection, the results were of the most satisfactory kind. A piece of zinc as large as a pea, or the point of a small iron nail, was found fully adequate to preserve forty or fifty square inches of copper; and the result was equally satisfactory, in whatever part of the sheet of copper the other metal was placed. And even when the connection between different sheets of copper was completed by wires or thin filaments of the fiftieth of an inch diameter, the effect was the same; every side, every surface or particle of the copper remained perfectly bright after being placed in sea-water for many weeks; while the iron or zinc was slightly corroded.

A piece of thick sheet-copper was cut in such a manner as to form seven divisions, connected only by the smallest filaments that could be left; and a slip of zinc, one-fifth of an inch wide, was soldered to the upper edge. The whole, after being immersed for a month in sea-water, left the copper in a *bright polished state*, as at first. The same experiment succeeded with a slip of iron, soldered to the copper; whilst similar pieces of copper, *undefended*, were considerably corroded by the salt water.

The importance of this discovery in the preservation of our shipping can at present scarcely be appreciated; for there appears to be not a shade of doubt as to its complete efficacy when reduced to practice. Sir Humphrey is still pursuing his researches on a large scale; but his observations on a comparative experiment, made for the purpose of demonstrating its practical effects, is all I shall venture to extract from his late communication to the Royal Society.—

As the ocean may be considered, in its relation to the quantity of copper in a ship, as an infinitely extended conductor, I endeavoured to ascertain whether this circumstance would influence the results. By placing two very fine copper wires, one *undefended*, the other *defended* by a particle of zinc, in a very large vessel of sea-water, which water may be considered as having the same relation to so minute a portion of metal, as the sea to the copper-sheathing of a ship. The result of this experiment was equally satisfactory with that of all the preceding. The defended copper underwent no change whatever; whilst the undefended wire tarnished, corroded, and deposited a green powder.

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These electro-chemical researches bid fair to open a most extensive field for investigation, and to prove of infinite value to the arts: for it seems not improbable that means will speedily be found, in almost every case, to prevent that destruction, or at least injury, to which all metallic surfaces are liable, from what is termed oxidation by the atmospheric air. I shall not fail to communicate to your readers, in the ensuing numbers, such new facts as become developed in this very interesting department of science.

Observations *on a* General Iron Rail-way, *or* Land Steam-Conveyance, *to supersede the necessity of Horses in all public Vehicles.*

To the Editor of the Monthly Magazine.

Sir:

In reference to my former communication, in your Magazine for June, p. 409, allow me to lay before your readers a few more remarks on this important subject. There is no branch of political economy which so imperatively demands particular attention in every district, *and none so worthy of national support*, as the facility of communication from town to town throughout the kingdom.

The natural importance of this improvement cannot fail, in process of time, to attract universal attention, both at home and abroad. The great facility and economy in our daily communication by steam-packets, afford the most perfect illustration of this scheme; but however excellent the present system of steam-packets may appear, the superiority of land steam-conveyance is far beyond it, as it unites, in a ten-fold degree, every advantage which steam-packets, canals, coasting-traders, and turnpike-roads now yield.

The expense of making a canal is considerably more than that of a rail-way; and the experience already had of our canal conveyance cannot fail to convince every impartial observer, that the heavy expense attending the construction and repair of canal-boats, with all their multifarious tackle, men's wages, horses and their keep, must render the transport of goods in this manner much dearer than by an *improved* rail-way, which so peculiarly combines both economy of time and of labour; in addition to this, we should consider how few hands are required to superintend a gang of waggons on the rail-way, compared with those employed in the conveyance of the same freight by a canal. But the almost insurmountable difficulties attending the construction of our canals (with the pleasing *serpentine* direction of most of them) such as locks, tunnels, reservoirs, towing-paths, &c., have seemed to attract the skilful spirit of our engineers, in preference to the other more simple, and profitable method.

Rail-ways are very commonly used for the levelling of roads, and removing the ground on the formation of canals; from this we may infer the great facility and economy which would attend the construction of a general iron rail-way, instead of the partial application of rail-ways as a mere auxiliary to roads and canals. Steam-packets were originally intended as auxiliaries to the sailing packets, but the former have, from their great superiority, already become nearly the sole conveyance for mails across the channels; the deduction therefore is clear, that so soon as public prejudice shall be overcome, our inland conveyance may be conducted on the same improved principle by the application of mechanical power on *improved* rail-ways, instead of by common.

Notwithstanding the improvements this plan may introduce into every country, and the great increase of inland trade to arise from the immense capital it would cause to be circulated in every direction, there may be individuals, as well as companies, whose interest would be affected; but it cannot be expected that the accomplishment of so great a work can be obtained without trespassing upon some few establishments. The proprietors of the *few* canals which do answer, will have the greatest reason to complain, but, in common with the rest of society, they must of course submit to any method of improving the conveyance or transport of merchandize, just as the coasting-traders do to the established steam-vessels; with respect to those canals which do not answer, and those that never can, the sooner they are abolished in *toto* the better.

In my former communication I described the great advantage to be derived from supplying the city of London with coal by this conveyance in preference to the employment of vessels; the same economy and despatch might also be obtained in supplying the corn markets of the metropolis, and of every other town. The delay attending the conveyance of goods by coasting-

traders, the numerous wrecks every winter, the enormous expenses so peculiar to the shipping interest, and the farther detention by canals (such as the total stoppage to commerce when they are undergoing repair, and in time of frosts, or droughts), greatly retard the intercourse of the country, and consequently enhance the transport of merchandize. Rail-ways are free from all these objections, and the great speed with which journeys might be made, would enable the proprietors of caravans and waggons to reduce the present charge one-half, as their returns would be so rapid; indeed, journeys might be made from London to the interior towns in half the time taken up by boats from Gainsborough, Selby, and Hull, without reckoning all the time lost by the circuitous passage trading vessels make from London to these ports; surely the wholesale dealers in colonial produce cannot long be indifferent to the importance of this improvement, which would enable them to supply the grocers of the country towns at one-half the present charge of carriage, and in one-quarter of the time.

But this scheme would not only improve all commercial connexions, by the approximation of the various branches of commerce and manufactures with their source, it would also add considerably to the domestic convenience of individuals residing in the vicinity of London; the immense population spread around the great city, going to and fro by the numerous stages every day, might be conveyed with greater accommodation and safety, in one-half the time, and at one-half the expense now incurred. The circumjacent country is particularly well adapted for rail-ways in every respect, therefore I should have thought it likely this plan would have commenced at the capital, as soon as at Birmingham, Manchester, and Liverpool; between these three places a rail-way is about to be laid down, for the general introduction of land steam-conveyance.

London, most particularly, requires a new system of communication with the commercial and manufacturing districts. The commerce of the capital must decline, in consequence of the delay and expense which attend the exportation or importation of merchandize there, compared with the north; in order to enable the metropolis to hold its wonted rank, as the chief commercial city, it must carefully watch and patronize in the south, every improvement of the northern parts.

Whatever attempts may be made to bring steam-carriages, or other mechanical vehicles, into use *on the ordinary turnpike-roads*, such plans will never answer; these new steam-carriages, on descending the steep hills of our ordinary turnpike-roads, would, on the slightest accident happening to the machinery, be dashed to pieces; the small weight, moreover, drawn by one steam-engine, and the dilatory rate of speed, compared with what the same engine might effect on an improved iron rail-way, are sufficient to shew the folly of the attempt. The only likely way of success is to adapt our road to the peculiar construction of mechanic-power, by a perfectly even and solid surface, so as to accelerate the speed of carriages with a less propelling power, and consequently diminish the expense of conveyance.

As a select committee was appointed by the House of Commons to examine into the merits of steam navigation, the same attention to the present plan would be productive of the utmost good. —Communications have already been made to Government—to the General Post Office—and to the Corporation of the City of London; and it is hoped that the rail-way, about to be laid down between Birmingham, Manchester, and Liverpool,* may stimulate the wealthy inhabitants

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* Mr. Stephenson, of Newcastle-upon-Tyne, has laid down the line between Liverpool and Manchester; the distance is thirty-three miles and one-sixteenth. The surveys are nearly completed, and the committee entertain not the least doubt of being ready for the next session of Parliament. Independent of the great benefit which the commercial interest will derive from the project, which, both as regards time and cheapness, will prove most important; the landed interest, in the vicinity of the line, will also derive very great benefit from it. The communication will be so cheap and rapid, that the distance from a market for produce, or for the supply of manure, will amount to very little. New collieries will be opened, and coals will be much reduced in price. The public in general entertain wrong impressions respecting rail-ways; they never hear them mentioned without referring to such as are seen in the neighbourhood of coal-pits and stone-quarries. But such improvements have taken place, that they are no longer the same thing; besides which, a rail-way without a locomotive engine is something like a cart without a horse, a trade without

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inhabitants of populous districts to exert their influence, and, by calling public meetings in their respective neighbourhoods, to canvass this new project, and promote its extension from town to town. The profit to be derived by the public from the scheme, may be computed from the enormous annual expenditure now wasted in purchasing and feeding unnecessary horses.

I remain, Sir,
Most respectfully yours,
THOMAS GRAY.

Nottingham, 1st Sept. 1824.

For the Monthly Magazine.

SUSPENSION BRIDGES.

MR. BUCHANNAN, the able engineer, has been commissioned by the public-spirited inhabitants of Montrose, in Scotland, to draw up a report for a projected bridge, to be made of wrought iron, on the suspension plan, across the mouth of the South-Esk river, on the great road from Edinburgh to Aberdeen. The design of Mr. Buchannan varies, in some respects, both from that of Mr. Telford in the suspension bridge across the Menai strait at Bangor, and from that of Captain Brown across the Tweed at Berwick. The printed report of Mr. B. contains a more luminous view of the principles of bridge-building, upon this new plan of suspension, than I have previously seen. His estimate of the strength of wrought iron not only proves him to be well qualified for the task, but it is at the same time satisfactory to the public to be well assured, in all such cases, that the practical results do not depend on any uncertain contingencies. It is not enough to shew that such a stupendous erection as an iron bridge 700 or 800 feet in length *may not fall*, it must be shown, and even proved to demonstration, that it *cannot* fall: and so far I think Mr. B. has, in his report, succeeded. It is far too long and minute for your columns, and I must therefore give your readers an outline only of the proposed plan.

It is well known that a great portion of the strain which is exerted on the main chains of a suspension bridge is owing to the vertical pressure, or the weight of the material which forms the chain. This is indeed so obvious, that an ordinary rope, which is not more than 1·8 the specific gravity of iron, will not bear tension many feet in length in horizontal direction, without forming a curve. In the design of every bridge on this construction, therefore, considerable allowance must be made for the strain on the chains, both from the weight of the iron employed, as well as the strain on the abutments, or what might be called the *lateral strain*; to which must be subsequently added, the probable weight the bridge is calculated to sustain in the construction of the necessary *road-way*; and the passengers or *loading* which it may have to support at any one period.

After computing the weight, collectively, from these sources, at the intended bridge of Montrose, to be somewhat less than 1,000 tons, Mr. B. proposes to have seventy-two chains, thirty-six on each side of the road-way, formed into a compact or solid square of six by six; these chains to be made of iron rods, about one inch and a-half diameter and fifteen feet in length, connected together by strong joints, of a peculiar construction. These chains he calculates as being capable of sustaining a pressure of 2,000 tons, or double that of the aggregate pressure of the weight of the materials of the bridge and its loading.

The chief variation, however, in the design of Mr. Buchannan from that of the Tweed bridge, is in the greater height of the pillars, or towers, over which the chains are suspended. This elevation of the towers allows the chains to have a greater or deeper inverted curve, by which the strain upon the tenacity of the metal is materially diminished. The bolts or links of his bridge will also be of lighter materials than those of the bridge at Berwick, owing to the diminished pressure (in proportion to its length) from the additional curve. There can be no question, I apprehend, as to the greater economy of materials and of aggregate strength, though the labour will be greater from the combination of a large number of smaller chains, than from a small number of large chains. If a large chain were to break, the consequences would probably be destructive to the entire fabric; but in a great number of chains combined the strain on the materials will be so much divided, that the stretching of any individual chain, or an imperfect link, will be opposed by all the other chains with which it is in connexion. I am of opinion that suspension bridges will ul-

a profit, or a canal without water.—*Gore's General Advertiser, Liverpool, 12th August,* 1824.

timately supersede those of all other constructions across rapid rivers, or wherever a deep current and variation of level form a serious objection to driving piles and the erection of piers.

A.

To the Editor of the Monthly Magazine.

SIR,

THE *numerous committals of persons not tried*, for offences charged to have been committed in and near London, have been the subject of some parliamentary discussion, and have occasioned returns to be made, and lately printed by order of the House of Commons, embracing the numbers of committals, and of bills found, within the years 1821, 1822, and 1823; from these documents I have selected the accounts collectively in these three years, as far as concerns six of the committing magistrates, and have contrasted them with the committals, &c., from the established police offices of the metropolis in the same period, *viz.*

NAMES of MAGISTRATES.	Number of Committals.	Number of Bills found.	Bills *not found*, per Cent. of the Committals.
Sir J. Pinhorn, Knt.	86	8	91
D. King, Esq.....	43	4	91
R. Hedger, Esq.....	66	10	85
M. Swabey, jun. Esq.....	428	128	70
R. J. Chambers, Esq..... ...	418	169	60
L. B. Allen, Esq.	522	214	59
TOTALS.....	1,563	533	66
The Police Magistrates collectively...	5,784	5,049	13
	7,347	5,582	24

It hence appears, that sixty-six in the hundred of the persons committed by the magistrates here mentioned, acting individually, were not subsequently considered by the grand juries as proper objects for trial; whilst of the far greater number of persons simultaneously committed from the police offices, only thirteen out of the hundred had their bills of indictment ignored—the proportion being little more than one-third of the latter to the former! Surely here is strong ground for inquiry into *the causes of these differences;* and it surely is injudicious to stifle this enquiry, by raising a general fund to provide for the victims of these indiscriminate commitments, rather than calling loudly for the lessening of their numbers. From the police returns, we have been able to calculate that sixty-five in the hundred of the persons committed from these offices *are convicted;* agreeing, within one per cent. with the proportion of those *who escape trial altogether*, after being committed and imprisoned for that purpose, by the other magistrates mentioned. It farther appears, that for every 100 bills which are found on the police committals, seventy-four persons are convicted, and only twenty-six in the hundred of those tried escape conviction. Allowing this same proportion of convictions to attend the other magistrates' bills found, we see that out of every 100 persons whom they commit for trial, only twenty-five are convicted; whilst three times that number of persons are let loose upon the public, after having suffered the unavoidable *contamination of a gaol* as to their morals and principles, and after the parishes have, in most instances, maintained their families and dependents during their improper confinement.

In three of the years' list of committals by private magistrates, embracing 66 persons, not a bill was found against any one of them, but they were all discharged without trial.

F.

For the Monthly Magazine.

THE extension of the cotton manufacture in Great Britain within the last thirty years, and the derangement which it has produced in the condition of her people, cannot fail to render some account of the rise, progress, and present state of the supply of the raw material interesting to your readers.

The plant, or tree, which produces the material for the manufacture in question, appears to be generally indigenous in the tropical regions. In the Linnæan classification of plants, it is denominated *gossipium*, a genus of the class *monadelphia;* order, *polyandria;* calyx double, and of which there

there are ten species. It seems to have been unknown in Europe till comparatively a very recent period, none of the Latin vocabularies giving any definition of its nature or properties. It is adverted to by Herodotus, as growing in India. It was found in Mexico and in Peru at the time of the Spanish invasion, and its manufacture among the Peruvians was carried on to some extent.

The generality of the native West-India species of the plant are annuals; whilst those of Asia are perennial, both in root and branch, rising in a straight line about eight feet high, with leaves in five palmate lobes: but the plants chiefly propagated are of the herbaceous species. The origin and progress of its culture in Asia is involved in great obscurity; but it was doubtless coeval with the origin of those ancient dynasties which excited the cupidity of Alexander of Macedon, and its manufacture progressively extended from the Indus to Cape Comorin.

Although the plant, in a botanical point of view, appears to have been but little known in Europe till subsequent to the voyages of the Portuguese to India, by the Cape of Good Hope, the fabrics produced from the wool appear to have constituted articles of considerable traffic, when the commercial relations of India and Europe were carried on partly over-land, and partly across the isthmus of Suez.

As regards the etymology of the word cotton, it appears to have been derived from the Italians, who termed the down that adheres to the *mala cotonea* or quince, *cotone*,—from whence the French *coton;* and from the French, the English *cotton;* and from the slight similarity of the wool or *lana* of the *gossipium* of the Latins to the down of the *mala cotonea*, may probably be assigned the Italian appellation *cotone*, the French *coton*, and the English *cotton*. With the Indian names or appellations of this valuable plant, or of its *lana* or wool, either of Asia, Mexico, or Peru, I am not acquainted. The wool was called by the Greeks Ἐριόξυλον [*Erioxulon*]—from *crion*, signifying wool, and *zulon*, signifying wood or a tree. Hence, probably, its appellations with all the northern European nations: — German, *Baumwolle*, or tree wool; Danish, *bomuld;* Swedish, *bomule;* the Low Dutch appellation is *kattoen*, probably from the French; the Spanish, *algodon;* and the Portuguese, *algodam;* the Russian, *chlobstchalaja bumaga.*

Without, therefore, attempting to enquire farther into the origin and early history of the growth of cotton, I shall confine my observations to its use in great Britain since the period of 1770; with reference to which I herewith send you a tabulated statement* of the average quantity of the raw material imported annually, in periods of ten years, from that date down to 1801; and from 1801 down to the present time, distinguishing the several countries from whence imported, and the proportion from each respective country. The most important feature of this statement will be seen to be the large and increasing supply derived from the *United States* of America; adverting to which, I cannot help noticing the sudden and surprizing extension of the culture of the cotton plant in that part of the globe; from the time of its first colonization in the early period of the eighteenth century, down to its final extinction by the recognition of the federal government of the British United States in 1782-83, no regard was had to the culture, the growth not exceeding a few thousand pounds weight annually, which were consumed entirely for domestic use, none being manufactured for sale. Subsequent to 1783 a few trifling quantities were exported, more as experiments than in confidence; and in 1789, it was gravely debated by the congress, whether the soils of Carolina and Georgia were suitable to its culture, and whether it would be politic to afford it encouragement. It may here be right to state, that the cotton grown in this part of the world is of two very distinct kinds; one commonly called sea-island; the other upland:—the first very superior in quality, inclining to yellow in colour, with a greenish seed, from which it is easily separated, growing chiefly upon the sea coast, and on an *island* of Charlestown harbour—whence, probably, its common appellation: this was the kind first cultivated. The total quantity exported in 1791 did not exceed 190,000lbs.; in 1792, 140,000lbs.; in 1793, the total quantity of both sea-island and upland exported was about 488,000lbs.; and from that period, owing to the invention of a machine for the more effectually

* This we have found too long for insertion in our pages.—Edit.

effectually separating the seed from the down or wool of the upland species, the culture has been progressively extended. In 1794, the quantity exported exceeded 1,600,000lbs; the annual average of the five years, 1795 to 1799, upwards of 7,000,000lbs; and the annual average of the five years, 1800 to 1804, upwards of 29,000,000lbs.; and from that period down to 1819, in each year as follows:

Date.	Sea Island. *lbs.*	Upland. *lbs.*	Total. *lbs.*
1805..	8,787,659	29,602,428	30,390,087
1806..	6,096,082	29,561,383	35,657,465
1807..	8,926,011	55,018,448	64,944,459
1808..	949,051	9,681,394	10,630,445
1809..	8,654,213	42,326,042	50,980,255
1810..	8,604,078	84,657,384	93,261,462
1811..	8,029,576	54,028,660	62,058,336
1812..	4,367,806	24,519,571	28,887,377
1813..	4,134,849	14,975,167	19,110,016
1814..	2,520,338	15,208,669	17,729,007
1815..	8,449,951	74,548,796	82,998,747
1816..	9,900,326	72,046,790	81,947,116
1817..	—	—	85,649,328
1818..	—	—	92,471,178

The diminished exportation in 1808, was owing to the interdictory system of the Americans; and the same causes operated again in 1812, which terminated in open hostility in 1814. Up to the year 1808 the exportation may be considered as comprizing the entire growth. The total quantity manufactured in the United States in 1800 not exceeding 150,000lbs., in 1805 about 300,000lbs., extended in 1810 by the circumstances of 1808, to about 3,000,000lbs. The circumstances of 1812 again gave additional stimulus to manufacturing operations, which in 1815 were extended to about 27,000,000lbs.; the renewal of intercourse however, in 1815, operated as a severe check to American manufactures, so much so, that out of 2,325 persons, employed in the manufacture in Philadelphia in 1816, 149 only were employed in 1819; since when, however, the manufacture has again revived, and probably amounts to the working up of about 25,000,000lbs. of the raw material. Of the total quantity exported in 1815 and 1816, about 18,000,000lbs. in each year went to France; about 5,000,000lbs. to all other parts of Europe, and the remainder to England. I have no authentic account before me of the total quantity exported from the United States since 1818, but the quantity imported into England, as exhibited in the general statement which follows, will serve pretty correctly to denote the progress of its culture. The quantity to France and other parts of Europe has probably remained stationary at about 22 to 25,000,000lbs. per annum, and the quantity consumed in internal manufactures about the same; so that the present growth of the United States of America may be estimated at from 150 to 160,000,000lbs. weight annually, with every prospect of its being doubled within the next fifteen or twenty years. From the close connexion between the growth of the raw material in the United States of America, and the manufactures in Great Britain, it will be seen necessary to exhibit them together. The values, therefore, which equally concern both countries, shall be the next part of the subject for illustration. The sea-island being a delicate plant, and susceptible of injury from the rains, varies greatly in price, the stained and ordinary qualities not exceeding in value the best quality of the upland, whilst the value of the clean and finest quality of the sea-island is double that of the finest upland. In adverting to the money value, it will be necessary to consider also the duty to which it has been subject on importation, and also the expense of transit. During the war, the impost was raised to 25*s.*6*d.* per 100lb. when imported in foreign ships, and 16*s.* 11*d.* if imported in British ships; in 1816 the duty was reduced to 8*s.* 7*d.* per 100 lbs. imported either in foreign or British ships; and in 1819 it was altered to an *ad valorem* duty of 6*d.* per lb. on the value, at which it has remained permanent. During the war the freights varied from 2*d.*, 2½*d.*, to 4*d.* per lb.; but since the termination of the war have found their level at from 1¼*d.* to 1¾*d.* per lb. In stating the money values at the different periods (as far as the grower is concerned in them), they will be stated including the amount of freight and impost. It will be proper to deduct them in estimating the value to the grower; to the consumer not so. In July 1801, the consuming price of the upland averaged about 2*s.* 2*d.* per lb., receding gradually to 1*s.* 3½*d.* in 1803; advancing again to 1*s.*11*d.* in December 1805; from thence fluctuating from 1*s.*11*d.* down to 1*s.* 5*d.* up to 3*s.* 1*d.*, which was its maximum in October 1808, and which may be accounted for by the interdictory system of the American Government. The derangement to commercial intercourse occasioned by the Buonapartean

napartean proscription of 1810-11, depressed upland cotton to 1*s.*0½*d* per lb., in September 1811; the diminished supply again in 1813 raised its value to 1*s.* 11¾*d.* in Feb. 1813, and to 2*s.* 1¼*d.* in January 1814, being the maximum of the latter interdictory period; 1*s.* 8½*d* per lb. was the average value at the opening of the year 1815, attaining 1*s.*11½*d.* in September of that year, receding to 1*s.* 4¾*d.* in December, remaining pretty stationary through the year 1816, advancing to 1*s.*9*d.* in September and October 1817, remaining pretty stationary to September and October 1818, when the excessive importation from the East-Indies paralyzed all the attempts which had been made to maintain high money prices, which gradually receded to 11¾*d.* in June 1819, when there was a trifling reaction, and in September of that year the average again attained 1*s.*2*d.*, but the attempt to maintain the advance proving abortive, the commodity has found its mean consuming money value in Great Britain at about 9*d.* per lb., yielding to the growers about 6½*d.*, or a total annual value of about £4,000,000, at which rate the utmost efforts are directed to extend the culture. In addition to the countries enumerated in the general statement of imports since 1801, in a following page, there are trifling supplies derived (included under the head of West-Indies, &c.) upon the various ports on the coast of Spanish South America, from Smyrna; and within the last two or three years, from Egypt. The culture in North America is extending to the districts west of the Allegany Mountains, finding its way to market by the waters of the great river Mississippi to New Orleans, and from thence to Europe. It would not perhaps be unworthy of British enterprize, to consider how far it is desirable to attempt its culture contiguous to the great chain of lakes, and divert the conveyance thereby to Europe by way of the great river St. Lawrence. In a full developement of this interesting subject, it will be necessary to exhibit the culture in the Mississippi territories distinct from that in the districts of Georgia and Carolina, and also of Bengal distinct from that of Surat. The following is a scale of the *relative* money value of the several kinds at present imported into Great Britain, taking the North American upland at 9*d.* per lb., as the mean digit of the scale, and the whole of fair average qualities.

Sea-island	18*d.*	Pernambuco	11½*d.*
New-Orleans . ..	10	Maranhao ..	11
Mississippi and western territories..	8½	Bahia	10¾
Laguna	9	Para	10½
Carthagena	7	Minaa Novas	10¼
Demerara & Berb.	11½	Do. Geraes	9¼
Barbadoes	10	Egyptian ..	11
Other West-India	9½	Smyrna	7
Upland	9	Surat	7
		Bengal	6

In regarding this scale of values, it is important to bear in mind the distinction between the *intrinsic*, *relative*, and *current* value of commodity; the intrinsic value of a commodity, for instance, may occasionally very considerably exceed or fall below its current value, owing to various contingent circumstances; and although the above scale is intended to shew the *relative* value of the several kinds of cotton wool to each other, it by no means conveys a definite idea of the *intrinsic* value or properties of the respective kind, so much depending upon the cleaning and condition. The Carthagena, for instance, which uniformly comes very badly separated from the seed and very dirty, if properly managed would be considerably enhanced in value. The relation in the above values must be regarded with reference to the condition in which they are usually imported, rather than with reference to their intrinsic properties.

Previous to the extended culture in North America, a very considerable portion of the supply annually was derived from Smyrna—say 6 to 7,000,000lbs. The culture in Asia Minor, as well as Macedon, and other parts of Turkey in Europe, is still considerable, but consumed chiefly for domestic purposes, and in the eastern parts of Europe; but the little that is now brought to England, is used chiefly for candle-wicks. The quality cultivated in Egypt is good, and may be regarded as a new and important feature, should the career of the present enterprizing Pacha remain uninterrupted for a few years. In addition to the several kinds or growths previously enumerated, the little Isle of Bourbon, in the Indian Ocean, produces a very superior kind, limited in quantity, but equal in value, though somewhat different, to the American sea-island. It is probable also, from the delicacy of some of their fabrics, that a very superior kind is produced in India to any that is imported thence. China also, it is believed, produces a sort peculiar to

itself

itself, from which the *nankeen* cloths are supposed to be made.

But neither the extent of its growth in America, nor of its manufacture in England, is so much an object of surprise, as the very short period in which both have been accomplished. In point of extent, the comparison with the growth and manufacture of India, could it be ascertained, would probably be found trifling; the export of the raw material from Bengal and Bombay, in 1818, exceeded 660,000 bales, chiefly to China, or about 230 to 240,000,000 of lbs.; whilst the internal consumption probably equalled, if not exceeded that quantity.

It should be noticed, however, that the culture in the West-Indies has not decreased in proportion to the apparent decrease of importation under that head. It is true that the culture is very limited there, and the greater portion included under that head is from Demarara; it may also be inferred, from Portugal being included with the Brazils, that some plants are cultivated in Portugal, which is not the case; under the colonial regime the whole of the produce of the Brazils was carried to Portugal, and from thence re-exported: at the present time, however, nearly the whole growth comes direct to England from the Brazils; a comparatively trifling proportion goes direct to France and other parts of Europe. France is, however, the only other part of Europe where the spinning of cotton is carried on to any extent, being in that country about one-third what it is in England,—with this difference, however, that whilst England indicates an increase, France indicates a decrease; the number of bags in France, in 1822, having been 190,000, and only 166,000 in 1823; whilst the quantity in England, in 1822, was 541,000 bags, and 576,000 in 1823; the quantity spun in all the rest of Europe, collectively, not amounting to 60,000 bags. It deserves to be noticed, however, that out of the quantity spun in England, about 30,000,000 lbs. weight of yarn, equal to 100,000 bales of the raw material, is re-exported in a yarn state, which gives rise to considerable weaving operations in Russia, Germany, Denmark, and the north of Europe generally.

On looking at the statement of the quantity and value of the proportion of the manufacture exported, both in yarn and in cloth, the extensive aggregate depreciation in value forms a most striking feature; it will be seen that a quantity of yarn was given in 1823 for a less value than half such quantity was valued at in 1814; and that the depreciation in manufactured stuffs is on an equal ratio, 16,690,366 of quantity, being valued at £17,393,796 in 1814, whilst 24,117,549 of quantity, in 1823, was valued at only £13,751,415, instead of upwards of £25,000,000, which they should have obtained according to the value of 1814. Superficially considered, it may, it is true, be regarded as nationally advantageous, if out of £6,241,561 of raw material, we can re-export £707,313 in a raw state, £2,625,947 in yarn, and £13,751,415 in stuffs, and retain an ample supply for all internal purposes. Whatever depreciation may have taken place must be attributed to increase of quantity; it is not, however, on an abstract point of view, that we shall be justified in drawing conclusions on the subject; but viewed in relation to the luminous exposition of our commercial system by your correspondent A. R., at page 315 of your November Number 1823, and page 31 of the Number for February of the present year, the most lamentable inferences will, I fear, be found deducible from it.

E. A.

To the Editor of the Monthly Magazine.

Sir,

As an admirer of practical science, I was much pleased with the description of the new Vacuum Engine given in your last number, accompanied with a plate. I had previously seen the engine once, in company with several other gentlemen, but had not, at the time, an opportunity of putting such questions to the ingenious inventor as I could have wished respecting the *principles* of its action. The *effect* was certainly decisive as to the almost perfect vacuum produced in the cylinder, and the consequent rise of the water in the cylinder, and its rapid discharge into the buckets of a water-wheel. Indeed, the opinion formed by two or three of the gentlemen present connected with engineering, was unequivocally in favour of the power and perfect application of this new engine to all the purposes of the steam-engine. It was therefore not without surprise, that, in a little periodical called *The Chemist* (of the 4th instant), which I am in the habit of taking in, that I saw an article headed, "The Utility of Mr. Brown's Engine denied."

denied." It is quite impossible either that the parties (J. and G. Hanson) who take upon themselves to describe this engine in *The Chemist*, or the writer they quote in the newspaper called *The Scotsman*, could have seen the engine of Mr. Brown at work; for their description begins with the following words:—"The space under the piston being filled with common air"—whilst there is no such thing as a piston in the engine! Again: "The piston, of course, descends by the pressure of the atmosphere on its upper surface, till the density of the air below equals that of the air above; that is, it will descend, not to the bottom of the cylinder, but through one-third of the space!" After various other assumptions with regard to the construction and operation of the new engine which are unsupported by the facts, the writer says, "We have no hesitation in avowing our belief, that Mr. Brown's invention, so far as we can comprehend it, *is entirely a deception*, and one, we think, which could not impose on a single individual who has the most moderate knowledge of chemistry and mechanics!"

If the writer, who makes such a flippant remark, had only possessed the "moderate knowledge of chemistry" he alludes to in others, and either had seen the engine at work, or an accurate account of it, he would have discovered that it is *the flame of the gas, mixed with the atmospheric air which fills the entire cavity of the cylinder, that produces the vacuum*—at the same instant, the cap of the cylinder closes its top air-tight. The degree of rarefaction or vacuum produced in the cylinder, I presume, is satisfactorily shewn, by the rise of the mercurial gauge attached to the engine.

The chemical principles on which the investigation rests, "so far as I can comprehend it," may, therefore, be described to be—the combustion of the oxygen of the air contained in the cylinder; whilst the azote is nearly all expelled at the mouth of the cylinder by the flame.

With regard to the greater economy, or superior advantage, in other respects, of this new engine over the ordinary steam-engine, I do not feel myself competent to offer any opinion—being, not an engineer, but

A CHEMIST.*

* We have admitted this letter on the principle that our magazine should be open to all parties and opinions: at the same time, we think our correspondent a little too sanguine.—*Ed.*

For the Monthly Magazine.

PROSPECTUS have been issued for the establishment of two Bath Companies in the metropolis. The first under the name of the *National Bath Company*, proposes to build baths of every description, for health, as well as pleasure, hot and cold, vapour and medicated, and the cold baths are to be on so extensive a scale as to supersede all excuse for river bathing, a custom repugnant to the better feelings of society. Two situations have been suggested for this establishment, and either sufficiently eligible: the one in the centre of Leicester-Fields, the other in the Regent's Park, opposite to Portland Place, to which it would make a terminating object. The capital required, by estimate, is two hundred and fifty thousand pounds, and many names have been subscribed, as is the case at the beginning of most adventures.

The second of these projects, the Metropolitan Marine Bath Company, proceeds on a still more extended scale; and though by no means impossible, has somewhat of the improbable in it, even in this age of immense capital and daring speculation. By this scheme it is intended to furnish the metropolis with salt-water baths, large enough for the purposes of recreation as well as health, and the water is to be raised by a steam-engine from the sea at Brighton, and conducted to London through the medium of iron pipes, two feet in diameter. The estimated expense, per mile, for the conveyance of the water is about £700, or about £250,000 for the whole distance. The other half of the capital will be required for purchasing ground, and the erection of the necessary buildings for forming five different establishments in different quarters of the town. The schedule goes into a very minute statement of the calculated expenditure and receipts of one of these five divisions or stations. With regard to the current expenses for superintendance, it is only a matter for the consideration of the subscribers; but I extract the following statement of estimated receipts per annum, for the purpose of shewing the advantages the public are to derive from the plan. Each of the five stations will be calculated to afford accommodation for

100 warm baths, per diem, for 200 days, at 3s. each person	£4,500
12 vapour baths, at 3s. 6d. each ..	506

10 medicated or gaseous baths. at 5*s.* each.....	£750
100 ladies' cold baths, for 120 days, at 2*s.* each.....	2,400
100 gentlemen's private baths, at 2*s.* each.....	1,200
Subscriptions to swimming bath and school	1,500
700 non-subscribers for best swimming bath, at 1*s.* 6*d.* each.....	6,300
800 in second ditto, at 6*d.* each....	2,000
400 persons, once a week, for 20 weeks, at 3*d.* each.....	1,000
	20,300
Or, the five stations.....	101,500
Calling the gross expenses..	51,500
Leaving a profit of	£50,000

But whether both, or either of these schemes will be actually carried into effect, is to me, at least, a matter of doubt, though the partizans of the two companies are pushing on their schemes with vigour. For myself, I should lament their failure, being convinced of their utility, and deeming the absence of baths an opprobrium to the richest capital of Europe. For the general purposes of health, salt-water bathing is of the utmost importance, and in many cases of disease that have baffled the most potent drugs of the pharmacopeia, the vapour and medicated baths are known to be most powerful remedies. Is it not strange, that while medicated baths are in general use throughout France, Germany, and Italy, and under the advice of the first physicians, we have no such establishment whatever in London?*

* Our correspondent is wrong. There is a charitable institution for medicated baths in Blenheim Street, though on a poor scale; and an excellent private establishment by a Mr. Green, in Bury Street, St. James'.

SPIRIT OF PHILOSOPHICAL DISCOVERY, AND OF THE VARIOUS SCIENTIFIC JOURNALS.

THAT *spots on the sun are removed by the near approach of a comet*, has been concluded from the astronomical observations of M. de Biela, of Prague: he also observed, that the comet of January 1824, besides its proper tail, directed *from* the place of the sun, was accompanied by a shorter and less brilliant tail directed towards the sun, nearly, but not exactly, opposite to the real tail. From observing that the inferior tail occupied the path which the comet had just travelled, M. B. considers it as analagous to the stream of light which some luminous meteors leave behind them in the sky; but the greater number of these are mere optical illusions, occasioned by the eye not following the object, and letting its image traverse the field of view.

The phenomena of the *Aurora Borealis* were carefully observed by Dr. Thieneman, during a winter which he lately spent in Iceland, his conclusions from which observations are as follows, *viz.*

1st. The highest and least dense clouds of our atmosphere are the seat of the Aurora.

2d. These polar lights are not peculiar to the winter season, or to the night time; though it is only in the absence of the solar rays that they obtrude themselves to observation.

3d. They have no ascertained connection with the earth; their various motions being confined within the limits of the clouds that contain them.

4th. Their common form in Iceland is arched, in a direction from E.N.E. to W.S.W.; and here the doctor could perceive no hissing or other sounds, to accompany the appearance of Aurora.

The *climate of London*, as dependant on its atmospheric phenomena, has been thus illustrated by Mr. J. F. Daniels, in his "Meteorological Essays," *viz.* The mean pressure of the atmosphere, as denoted by the barometer, 29-881 inches of mercury. The range being from 30-82 to 28-12 inches, and mean daily fluctuation .015 inch: the mean temperature derived from the daily *maxima* (its mean being 56°-1) and the *minima* (its mean being 42°-5), of the thermometer of Farenheit, was 49°-5: the range from 90° to 11°. The force of radiation from the sun averaged 23°-3 in the day, and that from the earth at night 4°-6: the highest temperature of the sun's rays was 154°, and the lowest temperature on the surface of the earth 5°. The mean *dew point* was 44°-5, calculated from the daily *maxima* and *minima*, made up of the following proportions of the mean, from eight points of the wind, *viz.*

75 days S.W.	48°-6	37 days S.E.	45°-6
72 days W.	44- 8	29 days N.	40- 1
58 days N.W.	41- 3	27 days E.	42- 3
44 days N.E.	40- 7	23 days S.	48- 7

The range of the dew point was from 70° to 11°: the pressure of the vapour varying with it from 0.770 inch to 0.103 inch.

The greatest degree of *dryness*, or least degree of moisture, as indicated by the author's hygrometric scale of 389, was 29°.

The *daily periodical fluctuations of the Barometer in different Latitudes*, or average difference

difference between the highest and the lowest state of the mercury, has lately been an object of research with Mr. J. F. Daniel, who has ascertained that this fluctuation is greatest at the equator, and decreases with considerable regularity as the latitude increases, until somewhere between 50° and 60°, where it ceases, and where the mercury would, independant of temporary causes, remain constant throughout the day; and from this neutral point, in proceeding towards the pole, the daily fluctuation again increases, but in the inverse order, rising here at the same hours at which it was falling in the corresponding place between the neutral point and the equator, and *vice versâ*. Some idea of the quantity and rate of decrease and increase in this diurnal fluctuation may be given by stating, that in N. lat. 0° 24′ it is ·074 inch, in N. lat. 51° 31′ ·015 inch, and in N. lat. 75° ·034 inch. The next return of Capt. Parry's expedition is expected by Mr. Daniel to bring home important confirmation of his barometric theory, which is described at some length in the *Journal of Science*, No. 34.

The *velocity of Sound*, under the various circumstances by which the same is affected in its transmission through the atmosphere, has been experimented upon with great care and labour by Doctors Moll and Van Beck, between two open and elevated spots in the plain of Utrecht in Holland, distant 9,664 fathoms: the details of these experiments, and the Doctors' results, were read before the Royal Society of London in its last session, and may be expected to appear in its forthcoming volume of Transactions. In p. 50 of our present volume, we gave the results of Dr. Gregory's late experiments near Woolwich.

That delicate *Chronometers are affected in their rates by variations in the density of the air*, has been again ascertained by Mr. G. Harvey (for the fact was long ago known, and the subject of a patent for obviating it): he placed different chronometers under the receiver of an air-pump and in that of a condenser, and uniformly found, that a diminution of pressure in the surrounding air occasioned a gaining, and an increase of pressure a loosing, on the previous rates of the chronometers submitted to these experiments: it also appeared that corresponding increases or decreases of the arcs of vibration attended these loosings or gainings of the chronometers.

That *the angles of Crystals do not remain constant, except under the same temperature*, has been ascertained by M. Mitscherlich, who found, that the obtuse didral angles of a crystal of carbonate of lime, in passing through the various degrees of temperature from 32° to 212° of Farenheit, diminished ·5: this seems an important discovery, not only as promising to reconcile many discordant angular measurements of crystals, carefully made with the best instruments; but also, as being likely to furnish some of the *data* which were wanting, for the analytical investigation of the principles of crystalography. Increase of temperature has also been found to diminish the doubly-refraction property of carbonates and sulphates of lime, and also of rock crystal.—*Ann. de Chim.*

The *mathematical Theory of Magnetism* has been elaborately investigated by M. Poisson, in a memoir read before the Parisian Academy, analogously to the theory of electricity, which refers the phenomena to a *positive* and a *negative* fluid; M. P. attributes the attractions and repulsions of magnetic substances to two imponderable fluids, a *boreal* and an *austral* fluid, acting in the inverse proportion of the squares of the distances; and has thereby deduced *formulæ* of very general application, such as, when applied to Mr. Barlow's important experiments, bring out his results with surprising exactness: except regarding the inference of that philosopher, as to there being *a plane of no attraction* crossing the centre of every magnetic needle perpendicularly to the line of dip; whereas, the attractions in this plane merely decrease so much, as not to have been readily measurable in Mr. Barlow's method.

One of the most curious of M. Poisson's results is, that *a magnetic needle placed in the interior of a hollow sphere of soft iron*, and so small as not to exert any sensible influence on the sphere, *will not exhibit any polarity* from the effect of the earth's magnetism, or from that of any other magnets placed without the hollow sphere.

That *the magnetizing of a steel bar increases its power of conducting electricity*, has been discovered by Mr. Abraham; and hence he recommends, that *conducting rods for lightning* should be magnetized previous to their erection.

Mr. S. A. Christie has ascertained, that *as the temperature of a magnetized steel-bar is increased, its intensity is diminished, and vice versâ:* his experiments, communicated to the Royal Society, range from 3° of Farenh. to 127°: from 80° the intensity decreased rapidly as the temperature increased, and at above 100° a portion of the power of the magnet was permanently destroyed.

Mr. Thomas Pollock, in making an attempt *to explain the action of the Voltaic pile*, in No. 316 of the *Phil. Mag.*, has offered some preliminary views of the subject which appear worthy of record here:—There is, he says, no necessity for supposing the existence of *heat*, *light*, an *electric*, *galvanic*, or perhaps a *magnetic* fluid, distinct from one all-pervading *radiant matter*, filling the interstices between, and surrounding the atoms of every other species of matter in the universe: this radiant matter being capable, when set in motion, of producing *heat*. That no motion whatever can take place upon the surface of our

globe, without producing a change in the distribution of this generally prevading principle, which Mr. P. has not attempted to designate by any particular name. If a gas become a fluid, or a fluid a solid, there is a diminution of capacity for heat; there is a contraction of volume, and the form this matter has now assumed, owing to contraction, demands less of this generally-pervading principle, and *heat* is in consequence presented to surrounding bodies. If this change take place with rapidity, and bodies possessing a great capacity for heat, as water or moisture, be absent, *light* will frequently result: hence the electric spark. While, on the contrary, if a solid become a fluid, or a fluid a gas, there is an increase of capacity, there is expansion of volume, and the form now assumed will, owing to this extension, demand more of this all-pervading principle, and *cold* will in consequence be presented to, or their pervading heat be abstracted from surrounding bodies. Moreover, if a gas merely contract or expand, without assuming either the fluid or solid form, the same effect will be produced upon the pervading principle of heat in surrounding bodies. Electric or galvanic action between bodies is the result of their containing different proportions of the all-pervading principle; and by the electric spark the excess is given off, and an equilibrium restored. So the thunder cloud, being formed of vapour in the atmosphere, having suffered a contraction of volume, has an excess of the pervading principle, which, by being transmitted to the earth beneath, or to another cloud which has suffered expansion, produces lightning.

Conducting power appears to Mr. P. to be the consequence of the strong mutual attraction existing between the particles of matter, as in a metal; it appears to depend upon the particles being nearer to each other than in bodies which have considerable *capacity for heat*, where the attraction is less strong, and the particles further separated. Thus the metals are found to possess the least capacity for heat of all the forms of matter: in *water*, these two powers are more equally blended than in any other body: it possesses a greater conducting power than any other fluid of equal density, and has a greater capacity for heat. It exists in three forms, solid, fluid, and gaseous, at a less variation of temperature than any others of the fluid compounds; and by the action of heat alone, differs from all others in being unalterable in composition. Mr. P.'s mode of applying these principles to account for Voltaic action not admitting of an intelligible abridgment, we must refer for it to the journal quoted.

Iodous Acid has lately been added by Signor Sementini to the number of the known combinations of iodine with oxigen; and he has stated the following as its distinguishing differences from the iodic acid which was before known: *iodic acid* is solid, white, without odour, reddening blue colours, and then destroying them; is volatile at 456° Farenh. with decomposition; and heated with charcoal or sulphur, it is decomposed with detonation. Whereas *iodous acid* is liquid, yellow, odorous, reddening blue colours, but not destroying them: volatilizes at 112° Farenh., and even at common temperatures, without decomposition: heated with sulphur it is decomposed without detonation, and inflames potassium and phosphorus by mere contact. —*Biblo. Univ.*, vol. xxv, p. 119.

The *sweet-scented Violet is a poisonous plant.* Messrs. Boullay and Orfila have ascertained that the violet (*viola odorata*) contains an active alkaline, bitter, and acrid principle, which they denominate *violine*, which greatly resembles the emetine of ipecacuanha: it is found to reside equally in the roots, leaves, flowers, and seeds of the plant, and to possess powerful poisonous qualities.

Cyanic acid, in combination with a metal, is found to compose the various fulminating powders.—Messrs. Liebeg and Gay Lussac, in experimenting on various fulminating mixtures, have ascertained that many, and probably all of them, owe this explosive property to cyanogen and oxigen entering into their composition. They found, for instance, fulminating silver composed as follows, *viz.*

Silver.....	72-19
Cyanogen ..	17-16
Oxigen	10-65
	100-00

Ann. de Chim., vol. xxv. p. 285.

Sulphurous acid gas has been liquefied by M. Bussy, producing a colourless, transparent, and very volatile liquid, of a specific gravity 1-45; it boils at 14° of Farenh., but produces so much cold in evaporating, as to occasion, for some time, a portion of the acid to remain liquid. When the atmosphere was at 50°, the bulb of a thermometer, wrapped in cotton, dipped into this liquid acid, occasioned the mercury to fall almost instantly to—70° of Farenh., as measured by an air thermometer. In the vacuum of the air-pump, a cold of—90° Farenh. was produced by its evaporation! by which, not only was mercury readily frozen, but also *alcohol* (of a spec. grav. below -852, at 55° of Farenh.) *was completely frozen!* Tubes cooled by the evaporation of this liquefied acid readily occasioned the liquefaction of chlorine, and of ammonia, when passed through them: and cyanogen, under the same treatment, was obtained in a solid crystalized form.—*Ann. de Chim.*

Cafeine, a new principle in coffee.—Messrs. Robiquinet, Pelleter, and Caventor, in experimenting upon coffee-berries, have discovered and separated a new chemical substance—white, crystalline, volatile, and slightly

slightly soluble in water, which the first-mentioned of these gentlemen has denominated *cafeine.*

Free or uncombined muriatic acid often crists in the human stomach, according to a late discovery of Dr. Prout; who, in one case of a very deranged stomach, from which 20 ounces of a fluid was thrown off, separated therefrom above half a drachm of muriatic acid, of specific gravity 1-160.—*Brand's Journal.*

The existence of two other *spirituous fluids analogous to alcohol*, as to forming *ethers* on combination with acids, have been ascertained by Messrs. Macaire and Marcet at Geneva: one of these, which they denominate *pyroxylic spirit*, was obtained during the rectification of pyrolignic acid, or the vinegar of wood; and the other of which, obtained from the same source, they call *pyroacetic* spirit, and have pretty fully described their properties in a paper read before the Society of Physics and Natural History in that city.

Hydrogen gas is without smell, when pure. M. Berzelius has ascertained, that an odorous volatile oil is diffused in hydrogen gas, when prepared as usual from iron filings and diluted sulphuric acid; as may be rendered evident, by passing this gas through pure alcohol, by which, in a great measure, the smell of the hydrogen will be removed; and if water be added to the alcohol which has been so treated, and it be set by in a flask for some days, a heavy odorous volatile oil will be found deposited therein. If an amalgam of potassium and mercury be put into pure distilled water, pure and inodorous hydrogen gas will be evolved.

Electricity discriminated by its taste.—M. Berzelius has ascertained, that a current of positive electricity, passed by means of a metallic point on to the tongue, excites thereon an acid taste; but a similar current of negative electricity, a caustic and alkaline taste.

For *comparing the illuminating power of gases made from coal and from oil.*—Dr. A. Fye, of Edinburgh, has recommended the ascertainment of the proportion of *olefiant gas* in each of the several gases submitted for comparison, condensing the olefiant gas by means of chlorine gas, in the absence of light; as otherwise, the carburetted-hydrogen gas would be in part condensed by the chlorine. Into a graduated tall glass jar, filled with water and inverted in a water-trough, introduce as much of the gas to be experimented upon, as will lower the water from 100 at the top, to the mark 50 on the middle of the jar: a thick or black paper cover is then to be put on the jar, to exclude the light. Fifty measures of chlorine gas, previously prepared in a similarly graduated jar, are then to be passed up into the first jar, (which will lower the water to *zero* thereon), and the same is then to be left for ten or fifteen minutes, in order for the olefiant and chlorine gases to combine, which is known to take place in equal quantities. On lifting up the paper cover, observe now the height of the water in the graduated jar, and the same will indicate the quantity of olefiant gas, in one-hundred parts of the gas experimented upon. Suppose, for instance, the water should stand at 40, the gas under experiment must have contained 40 per cent. of olefiant gas. On experimenting in this manner, repeatedly, on the coal and on the oil gas delivered to their customers in Edinburgh by the gas companies there, Dr. Fye found the proportion of olefiant gas in them to be, on the average, as 17 to 31, or nearly as 1 to 1-8: from which, and a variety of other experiments, the doctor is unwilling to allow the illuminating power of oil gas to be any more than *double*, bulk for bulk, that of coal gas, notwithstanding so many persons have contended for a *triple* illuminating effect in the former gas as compared with the latter.

A source of *danger from the use of culinary vessels of copper*, has recently been discovered by Sir H. Davy, *viz.*, that *weak solutions of common salt*, such as are daily made by adding a little salt to boiling vegetables and other eatables in our kitchens, act strongly upon copper, although strong ones do not affect it. Sir Humphrey's electrical conjectures, as to the cause of this peculiarity, appear to us rather far from satisfactory; but the fact is most important to be generally known.

The *poisonous fly-waters*, which were a few years ago sold at the oil-shops, and were much in use for clearing our dwellings of the swarms of common flies which infest them during the months of August and September, have almost generally been laid aside, on account of the numerous loss of lives to children and to cats, &c. from the inadvertent drinking of these poisonous fluids. It is now, however, ascertained, that ground black pepper and moist sugar, intimately mixed in equal quantities, and diluted with milk, placed in saucers, adding fresh milk and stirring the mixture as often as necessary, succeeds admirably in occasioning the death of the flies, without being at the same time dangerous to the persons or useful animals which might unguardedly taste of this mixture. The chief breeding-places of these flies are the stables, and places where horse-dung is found.

Why the eyes of a portrait, which look directly at a spectator in front, do so also in any other position, has remained without an explanation until lately. Dr. Wollaston, after considering the matter, observes, when two objects are seen on the ground at different distances from us, in the same direction, one appears, and must be represented in a picture, as exactly above the other, so that a vertical plane from the eye would pass through them; and since such line will be seen upright, however far we

we move to one side, it follows that the same object will still seem to be in a line with us, exactly as in the front view—seeming, as we move, to turn from their first direction. In portraits, the permanence of direction, with reference to the spectator, depends on the same principles. So the nose, drawn in front with its central line upright, continues directed to the spectator, though viewed obliquely; or, if the right side of the nose is represented, it must appear directed to the right of the spectator, in all situations.

The *temporary derangement of vision*, which very commonly follows acidity or flatulency in the stomach, and as commonly precedes sick-headach, or else unusual sleepiness, in great numbers of persons (the writer amongst the number), has lately attracted the attention of Dr. Wollaston, who, with his wonted sagacity, has discovered that, usually, one half only, either to the right or to the left of each eye, is in these cases temporarily affected with blindness. From a careful consideration of the circumstances attending five cases of temporary *half-blindness*, which are detailed in the *Philosophical Transactions* just published, the doctor has been led to an important anatomical discovery, as to the *semi-decussation of the optic nerves* in the human subject; that is, instead of the entire optic nerves from the two opposite thalami of the brain, crossing each other, and proceeding entire to the eyes, on opposite sides, as has generally been supposed, that portion of nerve which proceeds from the right thalamus to the right side of the right eye, passes to its destination without interference; and, in a similar manner, the left thalamus supplies the left side of the left eye with one part of its fibres; whilst the remaining halves of both nerves, in passing over to the eyes of the opposite sides, intersect each other, either with or without intermixture of their fibres. On this principle, Dr. Wollaston most ingeniously explains how single vision is produced by two eyes—how infants are enabled to avoid squinting, &c.

The *migration of birds* was a subject which, during many years, engaged the attention of the late celebrated Dr. Jenner, having been early in life stimulated to the inquiry by the investigation on this subject which the great John Hunter was carrying on, whilst Mr. Jenner was resident in his house as a medical pupil. The son of Dr. Jenner has, since his decease, communicated to the Royal Society his father's manuscripts on the subject, which have been printed in the *Philosophical Transactions*,—a recapitulation of which is as follows, *viz.*—First, Dr. Jenner adduces some arguments in support of *migration*, because of the fact itself not being generally admitted by naturalists of celebrity, and also against the hypothesis of a state of torpor, or what may be termed the *hybernating system*. He next shews, from repeated observations, that the swallow tribe, and many other birds that absent themselves at stated periods, return annually to the same spot to build their nests; and that any inference drawn from this fact, in support of a state of torpor, would be fallacious, upon physiological principles. In corroboration and continuation of the observations of John Hunter, Dr. Jenner shews, that certain periodical changes of the *testes* and *ovaria* are the exciting causes of migration,—and states many facts, hitherto unnoticed, with respect to *the cause* which excites the migrating birds, at certain seasons of the year, to quit one country for another, *viz.*, the enlargement of the testes of the male, and ovaria in the female, and the need of a country where they can, for a while, be better accommodated with succours for their infant brood than in that from which they depart. It is attempted to be shewn by Dr. Jenner, that their departure from this country is not in consequence of any disagreeable change in the temperature of the air, or from a scarcity of their common food,—but the result of the accomplishment of their errand, *i.e.*, the incubation and rearing of their young, and the detumescence of the testes and ovaria; that successive arrivals of migrating birds are attributable to the progressive developement of the generative system in the male and female; that progressive developements are wise provisions of the Creator; that premature arrivals and departures are frequently to be accounted for on the same principle; that the departure of the spring migrators is owing to a change in the testes and ovaria, the very opposite of that which took place in the spring; that the departure of the young birds is not guided by the parents, but the result of an unknown principle. In the second part of the doctor's paper some observations are made on the winter birds of passage:—that they quit their homes in this country, in the spring, in quest of a country better suited to their intended purpose than this; that they are actuated by the same impulse in quitting this country that causes the spring birds to come to it, and that want of food cannot be the inducement; that the emigration of the winter birds is less complete than that of the others, or spring migrators; that some species breed here, especially the wild-duck and wood-pigeon; that the redwings and fieldfares are the most regular and uniform in their appearance and disappearance, and most probably never risk the trial of incubation here, or at least not in the part of Gloucestershire where Dr. Jenner resided; that they quit the country *temporarily*, in severe and long-continued frost, through want of food, and return to it again at the approach of more temperate weather; that the arrival of water-birds forbodes the approach of intense

tense frost, and the usual return of the water-birds a thaw; that the examinations of the latter prove them to have taken long flights before their return, and sets the fact of temporary migration beyond the reach of doubt. The paper concludes with some additional particulars respecting the different sizes of the generative organs of migratory birds, as they appear at different seasons of the year.

A mass of *meteoric iron*, maleable and very ductile, and containing nickel, weighing about 1,655lbs., has been found by Messrs. Rivero and Boussingault, on the hill of Tocavita, in the mountains of Santa Rosa, between Timja and the plains of Bogota, in South America. In the same vicinity, several smaller masses of similar iron were found on the surface; all of them, probably, *fragments* thrown off at the same instant from one of the myriads of *satellitulæ* of our planet, which (according to Mr. Farey), from the period of their creation, have continued to revolve around it in elliptical orbits—the perigeic parts of which orbits pass through a portion of our atmosphere, the resistance and chemical action of which last occasions the temporary luminocity of these bodies—also, the explosive exfoliation of their superficial parts,—the continual lessening of their orbits, as an elliptical spiral, after each of such perigeic visits,—and a consequent deeper and deeper penetration within our atmosphere; until, probably, the remaining masses of many of these bodies have fallen to the earth, or into the seas which cover so large a portion of its surface. At Rasgata, in a different part or Mexico, a mass weighing 169lbs., and another 90lbs., of similar nickelated iron, have been found, by the same observers.

Star-jelly, star-shot, (Tremella Nostoc.)—These singular gelatinous small masses, which are found occasionally on marshy or fen grounds, are asserted by Mr. W. Fothergill to be mostly the decomposed bodies of frogs or toads, which have died during moist and wet weather. Those which die during hot and dry weather do not undergo this change; but their bodies shrink up into a leathery substance.—*Phil. Mag.* No. 316.

Ice, naturally formed during summer in some caves, is dissolved during the ensuing winter.—This remarkable fact has lately been verified, as to the ice-cave of Montarguis in Switzerland. M. Gampart visited this cave in the summer of 1823, and found much ice accumulated and rapidly increasing; yet two persons, who, in the following autumn and winter, three times visited the same cave (with much difficulty), found the ice rapidly melting therein, and at length it had entirely disappeared. Professor Picket has offered, as an explanation of this phenomenon, the currents of air which descend through fissures in the roof of the cave, greatly cooled by evaporation in summer; and the contrary currents of air which during winter ascend.—*Bib. Univ.*, vol. xxv, p. 243.

Very accurate *casts of the leaves of plants* may be prepared by a very simple process, which Mr. W. Deeble has described to the Society of Arts. A quantity of fine-grained sand, in rather a moist state, must be provided, on the surface of which a leaf selected for casting from should be laid, in the most natural position which the taste of the artist can effect, by banking up the sand beneath its more elevated parts, by the lateral pressure of the blade of a knife; when thus the leaf has been supported in every part, its surface should, by means of a broad camel-hair pencil, be covered over by a thin coating of wax and Burgundy pitch, rendered fluid by heat; the leaf being now removed from the sand and dipped in cold water, the wax becomes hard, and at the same time sufficiently tough to allow of the leaf being ripped off from the wax mould, without altering the form of the latter. The wax mould is now placed on the sand, and banked up in every part, as the leaf at first was; and then an edge or border being raised of sand around the leaf, at a sufficient distance, very thin plaister of Paris is then poured over the leaf, and a camel-hair pencil is used to brush the fluid plaister into every hollow on the surface, and exclude air-bubbles. As soon as the plaister is set, it will be found, on taking it up from the sand, that the heat generated during the setting of the plaister, will have softened the wax, and that the same may be dexterously rolled up from the impression thereof on the plaister: and thus the most beautiful and perfect moulds may be obtained for making any number of plaister casts in relievo, of the leaf which has been selected.

The possibility of changing the residences of certain fishes from salt-water to fresh, has been shewn by numerous facts and very able reasonings, in a long paper by Dr. MacCulloch, in the Journal of Science, No. 34; as also the probability, that effecting this change might greatly enhance the value of the inland and fresh-water lakes and waters, which so much abound in Britain: in conclusion the Doctor remarks on the insufficiency of that very fashionable geological theory, of French origin, which, from *the conjectured fresh-water*, or *the imagined marine* habits of the mollusca formerly, whose shells are now found imbedded in the strata, pretends to infer the existence formerly of *fresh-water lakes, or of the sea*, in random succession upon the same spots, during the progressive formation of the strata: idle whims, which have much retarded the march of useful geological research, and tended also to unsettle and empirize conchology.

An easily procured substitute for a chalybeate spring has been discovered by Dr. Hare, in America.—If several pieces of silver coins, and several pieces of thin iron plate

plate cut to the same size, be done up alternately in a pile, and secured in this state by a string lapped and tied round it, leaving the ends of the string loose, as the means of lifting up this pile: then, if into a jug of clean water this pile be inserted, and left for an hour or two, the water will be found to have acquired as strong a chalybeate taste, as that of many springs which are medicinally resorted to; and the same pile will in this manner impregnate a great number of successive jugs of water: if the water stand long unused, flocules of oxide of iron will begin to form in it, and fall to the bottom.

Strata of *coal, near Mount Lebanon, in Syria*, have been discovered, and a pit of this useful mineral has been for some time wrought, under the direction of M. Brocchi, who has returned from Nubia with a rich geological collection, particularly as to organic remains.

Coals have long been conjectured to exist under and around *Carlisle* city, and the same has lately been rendered somewhat more probable, by the sinking of a new well in the horse-market there; which, after penetrating through the red marl, reached, as is said, a perfect coal-sill or *shale*, in which it has been lamented that a deep boring was not commenced, in search of strata of coal beneath: the geological map of Cumberland by William, or rather, "*Strata Smith*," (noticed in our last volume, p. 546,) strongly indicates the existence of valuable coal-seams under several parts of the *vale of Eden:* but a minute and accurate *mineral survey* of the district must precede any rational attempts at discovering and setting on works upon these coal-seams.

There are similar probabilities of valuable coal-seams existing elsewhere, particularly under many parts of the extensive *vale of Cheshire*, that are covered by red marl, but the discovery and winning of these coal-seams, *hidden by unconformable red marl*, or its imbedded sand-stones (as Mr. Farey was the first in shewing) may be protracted centuries, and thousands on thousands of pounds be in the mean time thrown away, on fruitless boreings and sinkings; unless that minute and sufficiently extensive mineral surveys, *on Smithian principles*, are first made of these interesting parts of our island. The practical difficulty lies in the intermixture of property in the lands and their subficial minerals, rendering it too probable that those who might encounter the expenses of the preliminary investigations might only benefit other land-owners; or at best, that they would only share with others the discoveries made at their entire expense.

Philosophical Insanity. — The following instance of methodical and deliberate suicide approaches nearer to the stoicism of the ancients, on this subject, than to any of the modern instances of self-destruction. M. Bertholet, son of the celebrated French chemist of that name, an amiable young man, and of great promise in literary and scientific attainments, recently terminated his existence in the following manner:— Having lighted a charcoal fire in a confined room, he shut himself in, and closed every possible aperture. He then seated himself at a table, with writing apparatus, and deliberately noted down the time, and the progress of the vapour, or carbonic acid gas, on the vital system, till death suspended his operations! When found by his friends, some hours afterwards, he was extended on the floor quite dead, the latter part of the writing being illegible.

Safe Portmanteau, or Letter-bag. — A French gentleman of the name of Laporte, resident in America, has suggested an ingenious method of constructing a port-folio for the conveyance of letters by mail, which would not be liable to be cut or broken open. The principle of the invention seems to be nothing more than the application of what is called *chain armour*, or a sort of net-work of rings (iron or brass) connected together, and covered with leather in the ordinary way. The American papers speak very highly of the invention, and describe the bags as not exceeding more than about double the weight of the ordinary leather-bags used for conveying the mail. We are of opinion the principle may be applied with great advantage in the construction of all kinds of portable bags, without adding considerably to their weight. And in the manufacture of trunks of all kinds, an internal frame-work made of wire (of any requisite intervals), would be an effectual security against their being cut through for the purpose of plunder.

Immense Fish of the Ray Species.—The Edinburgh Journal contains a detailed report of the capture of an immense skate or ray-fish, by a Mr. Lamont, of the 91st regiment, with some others, off the harbour of Port-Royal, Jamaica, in February last. After observing that these fish (which, from their immense size and strength, are called by the inhabitants "sea-devils"), occasionally make their appearance off the coasts of America and the West-India Islands; the author describes the mode of attack, and the extreme hazard to the parties who go off in the boats, as far greater than the danger attending the whale-fishery. Such was the power of the sea-monster, that, after having six or seven harpoons struck into him from as many canoes, he made off with the greatest velocity for upwards of four hours, dragging all the boats ten or twelve miles out to sea. After which another large harpoon was struck into him, when he made a convulsive struggle, which effectually disengaged him from his enemies, finally carrying off eight or ten harpoons and pikes in his back.

An opportunity having again offered soon after, this gentleman and his adventurous friends

friends went in pursuit of a second fish of this species, which even shewed more *sport* than the former, plunging in the midst of the boats, and darting from the surface to the bottom and rolling round repeatedly to disengage himself from the harpoons, though he had received also several musket balls in his body. After *five hours*' combat with all kinds of weapons, this powerful fish was with difficulty towed ashore by the boats, when his appearance shewed the extraordinary tenacity of life which these fish must possess, his whole body being literally a heap of wounds, many of which had pierced entirely through him, yet he was not quite dead when brought ashore." The dimensions of this enormous flat fish were about fifteen feet in length, and the same in breadth, and from three to four feet in thickness. It had the appearance of having no head, there being no prominence or snout. Its mouth formed a cavity like the segment of a circle, about two feet and a half in width, without teeth, but on each side of the mouth projected a mass of cartilaginous substance about a foot and a half long, capable of meeting at the opening of the mouth. The other parts of this immense fish resembled the ordinary skate, except as to its vast dimensions and great strength.

Medical Chemistry.—The last number of the Annals of Philosophy contains a valuable notice from Mr. Children on the chemical nature of the acid found in the human stomach. The distressing disorder of the digestive functions, termed *dyspepsia*, has been commonly ascribed to the prevalence of acetous acid in the stomach; but for the purpose of determining the point, and consequently for administering such antidotes as the improved state of medical science might suggest, Dr. Prout last year made some experiments on the acid ejected from the stomach, and found it to be the muriatic acid, and not the acetous. Mr. Children says:—"An acquaintance of mine, who occasionally suffers severely from dyspepsia, and was somewhat sceptical as to Dr. Prout's conclusions, lately requested me to examine the fluid ejected from his stomach during a violent dyspeptic paroxysm the day before, with the view of ascertaining the nature of the free acid it contained. The fluid, which had been thrown from the stomach in the morning fasting, when filtered, was perfectly transparent and nearly colourless: it gave a decided red tint to litmus paper. I distilled about six ounces of it almost to dryness, at a gentle heat, receiving the product in three separate equal portions. One-half of each portion was treated with nitrate of silver. The first had no effect on litmus paper, and scarcely gave the slightest cloud with the test. The second became slightly clouded by the test, but was equally without any action on the blue paper. The third portion reddened the paper strongly, and produced an abundant dense cloud, when I dropped into it the nitrate of silver, and a pretty copious precipitate collected at the bottom of the tube. The remaining half of the third portion was evaporated by a gentle heat to about half a fluid drachm. The precipitate which a drop of it placed on a slip of glass, occasioned with a drop of nitrate of silver, was insoluble in nitric acid, and perfectly soluble in ammonia; another drop, similarly treated with muriate of barytes, gave no precipitate nor cloud. The remainder was neutralized with pure ammonia, further evaporated, and poured on a slip of glass, when it afforded a multitude of well defined crystals of muriate of ammonia. The presence of free muriatic acid in the ejected fluid from the stomach, and consequently Dr. Prout's conclusions, seem thus to be fully confirmed by the preceding experiments." Hence we have the means pointed out of greatly mitigating, if not actually removing, the distressing complaints of this class by the neutralizing agency of the alkalies.

Natural History.—Sir Everard Home, in a paper recently read before the Royal Society, on the anatomy and habits of the seal and walrus, remarks the extraordinary coincidence between the foot of the latter unwieldy animal and that of the insect class of creation, by which they are enabled to adhere to a wall or a ceiling. Sir E. Home, on examining the hind foot of a large walrus, brought home by Captain Sabine from the Arctic Regions, found it provided with a hollow space beneath, by which the animal is enabled at pleasure to produce a vacuum with the muscular action of the toes, so as to adhere with considerable power to a rock or other declivity.

PATENTS FOR MECHANICAL AND CHEMICAL INVENTIONS.

THAT exercise of the royal prerogative, whereby *patents* for nobility and personal distinction were granted, having been unduly stretched by the later sovereigns of the Stuart race, and applied to the establishing of numerous and very mischievous *monopolies*—the Parliament at length prevailed in abolishing by statute all such monopolies, except a very few, which were expressly legalized, and the conditions and regulations were fixed (in the Act, 21st James I., chap. 3), on which the crown might continue to issue

issue letters patent, "*and grants of privilege, for the term of fourteen years* (or under), *of the sole working and making of any manner of new manufacture,* within this realm, *to the true and first inventor* (or inventors) *of such manufactures.*"

These patents are granted, as well for discoveries made here, as for others imported from foreign countries, on condition of *the invention* being discriminated and *most fully disclosed in a specification,* to be enrolled within the time limited in the patent, for the free inspection afterwards of the public (and whereof official copies, including the drawings, may be obtained even by foreigners), without which enrolment, the patent is void; as it may also subsequently be rendered and repealed, on the legal shewing of any person interested, that the specification is *insufficient,* or deceptively redundant; or that *it claims,* in whole or in part, any inventions previously known here, and publicly used or published; or that the thing claimed is unimportant or inadequate to its alleged purpose, or *useless to the public;* or if it can be shewn, that more than five persons are sharers in the patent. It has also been determined, that the Attorney-General may indict criminally any person who, after the expiring of a patent, continues to designate and vend the wares theretofore made under it, *as patent articles*—this being no longer their character; but the invention then is *the property of the public,* in return for the previous monopoly it had tolerated; those too are equally liable who vend pretended patent articles, for which no specified patent has existed, or which has been repealed.

Under this last view of the subject, it appears of considerable importance that the titles and objects of *the expiring patents* should be made more generally known: we therefore have inserted a list in p. 246, considerably improved, of all such English patents as will expire in the month of October of the present year; and we propose to continue such a monthly list, in each of our succeeding numbers—accompanied, occasionally, with statements and remarks, as to the usefulness, and the success or otherwise, which have attended the patents during their term (on which head we shall be glad to receive communications from patentees and others); also as to any extensions or new applications of inventions which may seem practicable, in consequence of the accessions for improvement thus made to *the common stock* of our mechanical and chemical means.

We propose, likewise, to commence a complete list, somewhat improved as to its arrangements, of the new English patents, down to such a period as may include an entire calendar month's patents, which will be in ample time for such of our readers whom business or curiosity may induce to attend the offices of enrolment and peruse the specifications (of whose contents, however, they will be allowed to take *no notes* in writing); because the greater part of these enrolments are now deferred by the parties, until near six months after the date and commencement of the fourteen years' term of the patent; although, before such enrolment, the patent is but a mere dead letter, the patentee *not having disclosed with any useful precision* what are the inventions or *the claims which he means to set up under his patent.* The public, therefore, are little interested in any earlier announcement, as to patents, than the time of their enrolment.* As to inventors who may contemplate the obtaining of patents, and those engaged in improving any manufacture or process with such views, they, by the deposit of *a notice fee* (absurdly called "*entering a caveat*"), will have sent immediately to their residence, from the patent office, *the title* under which any new patent may be applied for in the department of manufacture or art mentioned in their caveat.

Our readers are many of them probably not aware, that *the specifications* themselves, of the greater part of the modern patents of chief importance to the manufactures, never are, or indeed can be, published in the periodical works, not even in those devoted expressly to this object, because of the great numbers, size, and complication of *the drawings* by which they are accompanied; and that the second-rate specifications, as to ingenuity and importance, and those of inferior consequence, are those usually printed,—including amongst them, we are sorry to say, many *mere schemes,* which are useless, or absurd. We shall therefore leave to others the task of giving an account of every patent invention, and continue the plan heretofore acted on in our work, of selecting only from the specifications those patents which are of actual utility.

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* It would be a most useful regulation, if *the titles,* properly amplified, of newly-enrolled patents for inventions were weekly published in the London Gazette; wherein, certainly, matters of so great importance as these *monopolies for fourteen years,* ought to be recorded, and to do so in any of their earlier stages would be useless. In this publication, the public ought to be told in which of the two different enrolment offices, *the patentees have chosen* to deposit their specifications, for avoiding the loss of time and expence of fees, which now attends earching the wrong office, in almost half the instances.

To FRANCIS GYBBON SPILSBURY, *of Walsall, Staffordshire, for Improvements in Tanning, 22d April* 1823.

The patentee in this case, Mr. Spilsbury, had been fortunate enough to discover and apply a new and very efficient principle to the tanning process, and might, if he had been well advised and assisted in the preparing of his specification, have thereby secured to himself all the simple and practicable modes of applying his principle in practice: his principle is this, *viz. the forcing of liquid tanning-matter into the pores of hides and skins*, and causing thereby the expulsion of the spent liquor from the pores, and so supplying them with fresh tan, until the tanning is completed.

The specification before us, instead of the comprehensive details which are hinted at above, is confined to one mode only of applying this very fertile principle, as follows, *viz.* a pair of skins of the same size are selected, from amongst those which have been limed and prepared in the usual way, and one of them is to be stretched flat out on a table, in order to take the shape and dimensions of a frame of metal, about one-fourth or half an inch thick, and one or two inches wide, which shall coincide with and cover all the outside borders of the spread skin, when laid upon it; another exactly similar frame is likewise provided, and also a third one of the same superficial dimensions, but much thicker, so that this thick frame may admit of a supply pipe passing through its breadth in one end or side of this frame, and a discharge pipe also passes through it at the opposite end, both of these pipes having stop-cocks upon them; a third pipe and stop-cock is also provided for the exit of air, in the same end or side of the thick frame with the supply pipe; besides which, a considerable number of small screw-bolts are prepared, and holes for them provided, to correspond, on the outward edges of each of the three skin-frames.

These frames being in readiness, the two selected skins are stretched in the proper position, one on each side of the thick frame, and then without side of the skins the outer frames are applied: the screw-bolts are entered in their places, and screwed tight up; by which arrangements, the pair of skins are made to form the sides of a flat air-tight bag, into which tanning liquor can be admitted by the supply pipe, and again withdrawn by the discharge pipe.

A cistern or tank of tan liquor is provided, several feet elevated above the ground, from whence there descends a pipe, which can be attached at pleasure to the supply-pipe of the skin frame above described, suspended in a vertical position; then, on opening the two upper stop-cocks, the tan liquor will flow down into the space between the two skins, and drive out the contained air by its exit pipe, and at length the liquor will begin to follow, which no sooner happens than this latter cock is closed, and the supply of tan liquor continues, until the skins become and remain distended, by the whole hydrostatical pressure of the column of fluid descending from the elevated cistern; and the consequence is, that the tan liquor slowly oozes through the skin, and is carried off from its surface by evaporation, or else drops down into a waste receiver, thereby making way in the pores for fresh portions of tan liquor, until the skins become, in much less time than by any previous process, thoroughly saturated with tan, and converted into leather of the very best quality.

When the tanning is found to be completed, the stop-cock of the supply-pipe is shut, and the tan liquor being then let out of the space between the skins, the screw bolts are slackened and taken out, and the skins are again detached from the frames; the outer edges, which have been nipped between the frames, are next clipped off, and then the skins are to be dried and prepared for market in the usual way. For each of the different sizes of skins, there must be a set, or several such, of skin-frames provided, which may be made of iron, if the same be kept well painted, to prevent staining the skins by their rust.

Through the remissness of this patentee, in not having extended his descriptions and claims to other modes of applying his principle, than as above, already has another patentee availed himself of some of them, as we shall now proceed to mention.

To HOWARD FLETCHER, *of Walsall, in Staffordshire, for Improvements in Tanning Hides and Skins, 19th January* 1824.

The invention in this case consists in the employment of air and water-tight vessels or tanks, within which the skins are to be exposed to the compressive

force of a column of tan-liquor, to facilitate their impregnation with tan. A cistern or tank of tan-liquor is to be provided, so much elevated above the intended tanning cisterns or vats, as to afford a pressure of nine or ten pounds upon a square inch in the bottom of the pipe descending therefrom. The tanning cisterns may be about five feet by four, and six feet deep, consisting of very strong and close sides and a bottom, and furnished with a tight lid, which, by means of moveable screws (of a well-known construction, though apparently claimed by Mr. F.) may be screwed fast down, and yet the lid be capable of being easily removed. Into one of the sides of the cistern, near its top, the descending pipe from the tan-cistern is to be soldered or flanged; a stop-cock is to be provided on this descending pipe, and a short pipe for the exit of air is to be provided, and furnished with its stop-cock, near to the top of the tanning cistern's side.

The skins or hides, after being limed and cleansed in the ordinary way, are to be loosely placed in the cistern, and then its lid is to be screwed on, and made air and water-tight. The cock for the exit of the air is then to be opened, and also the cock on the descending pipe: and when this last has entirely filled the vacuity of the cistern with tan-liquor, the air-cock is to be shut, and then the full effect of the hydrostatic column of fluid will be exerted, to force the tan-liquor into the pores of the skins. In order to facilitate the tanning, the lid of the cistern must be removed daily, and the skins taken out and hung to drain, before returning them to the cistern, and turning upon them the column of tan-liquor, as already described; towards the latter part of the process of tanning, the strength of the tan-liquor should be increased.

Instead of having recourse to an elevated cistern to produce the requisite pressure on the skins, Mr. Fletcher claims, under this patent, to effect the same, after the cistern's lid has been tightly screwed on, by forcing in air with a condensing pump, to press on the surface of the tan-liquor in contact with the skins.

Before the first of these patents had been specified, and when it had merely been mentioned in the newpapers that Mr. Spilsbury *used pressure* in aid of his new tanning process, the Writer, in p. 553 of vol. 56, took occasion to throw out a suggestion, as to applying pressure for expelling the spent tan-liquor from the pores of the skins, different from either of the modes above described. The same mode had then lately been successfully applied in *dyeing*, to expel the spent dye; and his reason for publishing the suggestion was, to prevent the same being locked up from general use by the public, in a patent. Mr. Spilsbury would have been well entitled, had he chosen to avail himself of it, to fourteen years' benefit of all the possible ways of carrying his principle into effect; but not having done so, he should, we conceive, be held as having given up to the public, the several modes or processes different from his own.

Here we cannot avoid remarking, that the practice established in applying for and obtaining patents from the crown, and the state of the law which sanctions the monopolies thereby created, strongly, yet improperly, operate upon inventors, to induce them to be *as general and as little explicit as possible in the titles* under which they apply for patents; and hence our remark at the head of this article, that the public are little interested in the announcements of new patents, prior to their having received definite and unalterable forms, in the enrolled specifications.

A considerable proportion of the patentees, including mostly those who claim monopolies in things of trivial value, and often in such as are of no importance whatever to the public, have been wont, in crying up their inventions in puffing advertisements and hand-bills, to try to make it be believed, that *the novelty and merits* of their invention *had been canvassed and fully approved* by the crown, or its officers, prior to the patent being granted to them: and that the grant had been made, in special reward to them for their ingenuity, and for the importance of their discoveries: than which, nothing can be further from the truth; because, except when, in consequence of a *caveat*, another person possessing, or alleging to intend applying for a patent, on the same subject, appears before the Attorney General, and claims his *exparte* and secret investigation of two contemporary inventions, so far only as to enable him to report, whether such are *the same or different* inventions, and whether one or two patents may issue (and almost invariably the latter *is* the issue), there

there is not any investigation whatever takes place, prior to the granting of a patent, *the title* of which may, as we have seen above, be *so general* as to leave the crown officers altogether in the dark, as to the nature and extent of the invention and *intended claims* of the patentee; and even in the cases where his *title* may shew, to all competent persons, the pretended invention to be perfectly *old* and in daily practice, or of little or of *no value*, or even *useless*, absurd, or demonstrably *impossible* (*perpetual motion*, and *power-gaining schemes* to wit), no objection is ever started on these grounds to the issuing of a patent; and for this plain reason, that the patent bears on the face of it, that "*it is entirely at the hazard of the patentee* whether his said invention (referring to the title) *is new, or will have the desired success*," words which cover even its absolute impossibility!

To WILLIAM HASE, *of Saxthorpe, in Norfolk, for a new method of constructing Mills or Machinery, chiefly applicable to Prison Discipline, 11th September* 1823.

The patentee purposes here to effect three distinct objects; the principal of which we shall *first* mention, *viz.* the rendering of prisoners' labour on the tread-wheel efficient and profitable, in the working of manufactories situated withoutside, and even at a distance from their prison; for this purpose, the tread-wheel is to actuate pumps (or hand winch-machines might do the same thing) for forcing water into an air vessel; the compressed air in the upper part of which vessel is, acting by its elasticity, to be at the same time the means of equalizing the action of the prison machinery, and also of forcing the water through pipes to the sites of manufactories, there to pass through and set in motion any of the rotary engines now known or in use, for the benefit of the manufacturer, paying a yearly rent for *the power* thus supplied to him.

The *second* object is, to provide means for exercising the hands and arms of the prisoners as well as their legs, in giving greater effect to the tread-wheel; in place of the fixed hand-rail usually employed to hold by, Mr. Hase provides a reel, or set of slowly revolving rails, the upper ones of which are to be adapted to the height of the men, and the front ones for boys, in pulling, all of them, at these rails, to support themselves, and ease part of their weight from their legs and feet. The axis upon which this reel is to revolve, being furnished with a ratchet and pall, manageable by the prisoners, so that they can fix the reel from revolving, whenever, for a change, they may wish to exert all their labour on the stepping-wheel, as heretofore has been the case; the reel is to be connected with the tread-wheel, either by an endless band or chain, or by gear-work.

The *third* object of the patentee regards improved discipline, and the saving of attendance where tread-wheels are used. The buildings, inclosing the prison machinery, should be so constructed, that the prisoners can, if necessary, be made to work separately, or in small parties of six or eight persons, in distinct compartments, separated by such partitions as will prevent conversation between the different parties on the wheel, and yet, as far as possible, admit the free air to them, all through open gratings in the front parts of such partitions. In order to save some of the attendance of an overseer, Mr. Hase proposes to suspend the whole of the floor within the grated partitions abovementioned, on levers, upon the principle of the weighing-machine, or of an ordinary scale-beam, so that the floor may descend a small space, whenever a greater number of prisoners are off the wheel than are by the prison regulations intended: such descent of the floor, to move an index placed in the governor's room, or else ring a bell, or give some other signal, of the insubordination which has occurred.

It would undoubtedly be of great utility, if means were adopted for rendering prison labour conducive to the benefit of the "fair trader," as the patentee expresses himself, but who, on the contrary, has too often suffered ruinous competition, from the sale of articles in his trade, manufactured within prison walls. The method here proposed, of conveying *the power* generated within a prison, for use outside of it, *at a distance*, might on some occasions be useful; but to this, *as a principle*, Mr. Hase can lay no claim, on account of an expired patent for this very object, granted to the late Mr. Bramah, who proposed to erect the most powerful steam-engines to force water through pipes for actuating machinery in any part of London! Nor does it appear,

pear, that *particular constructions*, or modes of carrying into effect this and others of the principles of invention indicated in Mr. Hase's specification, are sufficiently described therein, to afford him a chance of success in defending his patent right, should it be infringed.

A List of the Patents, which, having been granted in October 1810, *will expire in the present Month*, viz.

For *an apparatus to give motion to machinery*, applicable also to hydraulic and pneumatic purposes: the invention imported by, and the patent to, Marck Isambard Brunel, of Chelsea, Middlesex.—October 1.

For an *alarum*, to be given by a bell or a gun: to Benjamin Milne, of Bridlington.—October 1.

For *plate printing*, combining various species of work in the same plate: to detect counterfeits, multiply impressions, and save labour, and for the plates and presses used therein; imported: to Joseph C. Dyer, of London.—October 1.

For *military fifes*, of substances never before used for these wind instruments: to George Miller, of Panton-street.—October 1.

For *card-making machines*, with improved apparatus for preparing cards for the carding of wool, cotton, flax, &c.: to Messrs. J. T. Rutt, J. Webb, and J. Tretton, of London.—October 8.

For *an adjusting bedstead*, for sick or infirm persons: to Messrs. E. Parker and F. Chully, of Sheffield.—October 8.

For an improved *plough*, to cultivate land: to John Hazledine, of Bridgenorth.—October 8.

For *separating the alkaline salt from the acid*, in kelp, black ashes, soaper's salt, spent leys, &c.: to George Hodson, of the city of Edinburgh.—October 8.

For *a method of joining pipes*, of pottery and other substances: to Messrs. C. Francis and W. Waters, of London.—October 8.

For *his aulæum or flock-covered cloth, for decorations*, without seams, of any length, and to twenty feet wide: to Henry Stubbs, of Piccadilly.—October 8.

For *a soap*, for washing in sea or hard water: to Edmund Griffith, of Bristol.—October 8.

For *boots and shoes*, and other articles, sewed with wire: to Richard Woodman, of Hammersmith.—October 8.

For *a writing apparatus:* to Edward Manley, of Uffculme, Devonshire.—October 8.

For applying *palm leaves to form hats*, bonnets, baskets, chair-bottoms, &c.: to John Fraser, of Sloane-square, London.—October 15.

For *axletrees, boxes, and stocks* for the wheels of carriages: to John Wheatley, of Greenwich, Kent.—October 15.

For *artificial legs*, after amputation: to Thomas Mann, of Bradford, York.—October 31.

A List of Patents for New Inventions, granted in July 1824.

July 1.—For *adjusting the pressure and measuring the quantity of fluids in pipes:* to William Pontifex, Jun., of Shoe-lane, London.—Six months allowed for enrolling.

3.—For *twisting, spinning, or throwing* of silk, cotton, wool, or linen threads: to John Leigh Bradbury, of Manchester.—Two months.

3.—For improvements on *steam-engines:* to Philip Taylor, of the City-road, London.—Six months.

7.—For improvements in the *masts, yards, sails, rigging, and tackle of ships* and smaller vessels: to John Lane Higgins, of Oxford-street, London.—Six months.

7.—For improvements in *cloth-dressing machinery:* to William Hirst and John Wood, both of Leeds, York.—Six months.

7.—For the improved *weaving of woollen cloth:* to Joseph Chisild Daniel, of Stoke, Wilts.—Two months.

13.—For improved *tillers and steering-wheels* of vessels: to Charles Phillips, of Upnor, Kent.—Six months.

27.—For an improved *percussion principle for firing guns*, and protecting their priming from wet, &c.: to Charles Random, Baron de Berenger, of Kentish Town, Middlesex.—Two months.

27.—For a new kind of *coarse paper or felt:* to Alexander Nesbitt, of Upper Thames-street, London; the invention imported, from William Van Honten, Jun.—Six months.

27.—For improved *power looms*, and preparing their warps: to Thomas Wolrich Stansfield, of Leeds, York.—Six months.

27.—For improvements on *roller printing presses:* to Edward Cartwright, of Brewer-street, London.—Two months.

29.—For a *swift and other apparatus for winding silk* and other fibrous substances: to Charles Jefferies and Edward Drakeford, both of Congleton, Cheshire.—Two months.

29.—For *improving and augmenting the tones of piano-fortes*, organs, and euphonons: to William Wheatstone, of Jermyn-street, London.

BRITISH LEGISLATION.

ACTS PASSED *in the* FIFTH YEAR *of the* REIGN *of* GEORGE THE FOURTH, *or in the* FIFTH SESSION *of the* SEVENTH PARLIAMENT *of the* UNITED KINGDOM.

CAP. LXI. *To amend certain Acts for the Relief of Insolvent Debtors in England.*

It enacts that the jurisdiction of justices of the peace at quarter-sessions shall, from and after the 1st September 1824, be repealed, except as to the principality of Wales; and that prisoners, except in Middlesex, or Surrey, or City of London, or Borough of Southwark, be, by order of court, brought up to court-house of assize, or other town in county, or county of a city or town, where imprisoned within four months after date of order, and be there heard, discharged, or remanded by one commissioner, as if done by the court; and that an additional commissioner be appointed, three of whom are to make circuits, three times in each year if requisite, and the other to preside in the court. The court, or commissioners on circuit, shall appoint fit persons to be examiners of the accounts of prisoners, and of their schedules.

Cap. LXII. *To amend the several Acts for the Encouragement of Banks for Savings in England and Ireland.*

It enacts, that from and after the 20th of November 1824, no sums shall be paid into any Savings' Bank in England or Ireland, by any person, without disclosing his or her name to the trustees of such bank; and it shall not be lawful for trustees to receive from any one depositor, any sum or sums exceeding £50 in the whole during the year next ensuing, or exceeding £30 in the whole, exclusive of interest, in any one year afterwards, ending on the 20th of November; nor to receive from any depositor any sum or sums whatever, which shall make the sum, to which such depositor shall be entitled, exceed £200 in the whole, exclusive of interest; but depositors may withdraw such sums, and again deposit the same, or other sums, not exceeding the amounts aforesaid, during any such year. And persons entitled to any benefit from any savings' bank shall not make any deposit in any other savings' bank, and shall make a delaration to that effect; and in case any such declaration shall not be true, every such person shall forfeit all right to any deposit in every such savings' bank.

Cap. LXXIII. *To relieve Bankers in Ireland from divers restraints imposed by the Provisions of 29 Geo. II., and to render all and each of the Members of certain Co-partnerships of Bankers, which may be established, liable to the Engagements of such Co-partnerships, and to enable such Co-partnerships to sue and be sued in the name of their Public Officers.*

It repeals the clauses of the Irish Act of 29 George II., which required that the name of every banker should be mentioned in, or subscribed to all notes and receipts to be issued by such banker; and that no banker should trade or traffic as merchants in goods imported or exported.

It enacts, that before any promissory note or bill for money, payable to bearer on demand, should, at any time between the 25th March in any year and the 25th of March following, be issued by any society or co-partnership, consisting of more than six in number, and who shall have their establishments and houses of business at any place not less than fifty miles distant from Dublin, and who shall carry on the trade of bankers, and shall issue notes payable on demand; an entry and register of the firm, or name of such society or co-partnership, and of the proper names and places of abode of all the persons engaged in such society or co-partnership, shall be entered in a book, to be kept at the stamp-office in Dublin, and such entry or register shall specify the name of some individual of such society or co-partnership, who shall be considered as the public officer of such society, and the title or description of such officer, in whose name such society shall sue and be sued; and also the name of every town and place where any such promissory notes shall be issued or made payable by any such society or co-partnership, or by any of their agents, and the name, title, and description of every such public officer shall be mentioned in or subscribed to all notes or receipts, to be issued by or on behalf of such society or co-partnership, on pain of £100, and certificates of such entry and register shall be granted by the commissioners of stamps.

And if, after one calender month after passing of the act, any society or co-partnership of persons exceeding six in number (except the governor and company of the bank of Ireland) shall issue such promissory notes without such entry and registry, and a certificate thereof, every such society or co-partnership shall, for every such neglect or offence, forfeit £500 British currency.

And this act shall, at all times, extend to the members for the time being, during the continuance of such society or co-partnership.

Cap.

Cap. LXXIV. *For ascertaining and establishing uniformity of Weights and Measures.*

It enacts, that from and after the 1st of May 1825, the standard brass yard made in 1760, at the temperature of 62° by Fahrenheit's thermometer, shall be, and be denominated, the "Imperial Standard YARD," and shall be the unit or only standard measure of extension, whereby all other measures of extension, whether lineal, superficial, or solid, shall be computed and ascertained, according to the proportions for certain measures of extension specified in the act.

And that if the said imperial standard yard shall be lost or injured, it shall be restored by making a new standard yard, in the proportion of 36 inches to $39\frac{1393}{10000}$ inches, when compared with a pendulum vibrating seconds of mean time, in the latitude of London, in a vacuum, at the level of the sea.

It enacts, that after the 1st of May 1825, the standard brass weight of one pound, troy-weight, made in the year 1758, shall be the "Imperial Standard TROY POUND," and shall be the unit or only standard measure of weight, from which all other weights shall be computed and ascertained, according to the proportions for certain other weights specified in the act.

And that if the said imperial standard troy pound shall be lost or injured, it shall be restored by making a new standard troy pound, bearing the same proportion to the weight of a cubic inch of distilled water as the said standard pound, thereby established, bears to such cubic inch of water, that is to say, 5·760 cubic inches of distilled water, weighed in air, at the temperature of 62° of Fahrenheit's thermometer, the barometer being at 30 inches, each such cubic inch of water, when so weighed by brass weights, being equal to $252\frac{458}{1000}$ grains, and that 7,000 such grains shall be one pound avoirdupoise.

And it enacts, that after the 1st of May 1825, the standard measure of capacity, as well for liquids as for dry goods, not measured by heaped measure, shall be the gallon containing ten pounds avordupoise-weight, ascertained as before-mentioned, of distilled water weighed in air, at the temperature of 62° of Fahrenheit's thermometer, the barometer being at 30 inches; and such measure, when made, shall be the "Imperial Standard GALLON," and shall be the unit and only standard measure of capacity, from which all other measures of capacity shall be computed and ascertained, according to the proportions for certain other measures of capacity specified in the act.

And it enacts, that the standard measure for goods, and things commonly sold by heaped measure, shall be the BUSHEL, containing eighty pounds avoirdupoise of distilled water, the same being made round, with a plain and even bottom, and being $19\frac{1}{2}$ inches from outside to outside, and the goods and things shall be duly heaped up in the form of a cone, such cone to be of the height of at least six inches, and the outside of the bushel to be the extremity of the base of such cone.

And the act directs how copies and models of the said imperial standard weights and measures shall be distributed and brought into general use, and how local disputes, respecting the correctness of measures of capacity, shall be locally adjusted; and it repeals all former statues on the subject specifically.

VARIETIES, LITERARY AND MISCELLANEOUS;

Including Notices of Works in hand, Domestic and Foreign.

GREAT BRITAIN.

SIR Humphry Davy has arrived at his house in Grosvenor-street, from Denmark, after a stormy passage across the North Seas, in the *Comet* steam-boat. Sir Humphry has been engaged, during the months of July and August, in pursuing various philosophical researches along the coast of Norway, Sweden, and Denmark, for which the Admiralty granted him the use of the *Comet* steam-boat. He has ascertained, we understand, that his principle of preserving the copper sheathing of ships by the contact of 1-200th of iron, succeeds perfectly in the most rapid sailing and in the roughest sea. During this expedition, Dr. Piarks has connected, by chronometrical observations, the triangulation of Denmark and Hanover with that of England; and, by the desire of the Admiralty, various points of longitude have been determined by their chronometers, of great importance to navigation; amongst others, that of the Naze of Norway.

Extraordinary Phenomenon.—On the 20th instant, at Haworth, five miles south of Keighley, in the West Riding of York, and on the borders of Lancashire, about six o'clock in the evening, a part of the high lands on the Stanbury-moor opened into a chasm, and sunk to the depth of six yards, in some places exhibiting a ragged appearance, and forming two principal cavities—the one was about 200 yards, and the other not less than 600 yards in circumference,

ference. From these hollows issued two immense volumes of muddy water, and, uniting at a distance of upwards of 100 yards from their sources, constituted, for about two hours, an overwhelming flood from forty to fifty (sometimes seventy) yards in width, and seldom less than four yards in depth. This dark slimy mixture of mud and water followed the course of a rivulet, overflowing its banks for twenty or thirty yards on each side, and to the distance of seven or eight miles from the immediate irruption. All this way there is deposited a black moorish substance, varying from eight to thirty-six inches in depth, and mixed occasionally with sand and rocky fragments, pieces of timber, and uprooted trees, which had been borne along by the impetuous torrent. This heavy and powerful stream broke down one solid stone bridge, made breaches in two others, clogged up and stopped several mills, laid flat and destroyed several whole fields of corn, and overthrew to the foundation several hedges and walls. In its course it entered the houses, floating the furniture about, to the astonishment and terror of the inhabitants. At the time of the irruption the clouds were copper-coloured and lowering: the atmosphere was strongly electric, and unusually close and sultry. There was, at the same time, loud and frequent thunder, with much zigzag lightning, peculiarly flaring and vivid. An hour before, there was scarcely a breath of air stirring; but the wind quickly rose to a hurricane, and after blowing hard from six to eight o'clock, sunk again into a profound calm, at which time the heavy rain, which had continued all the while, ceased, and, with the exception of a few floating clouds, the sky was very serene. The whole is conjectured by the neighbours to be caused by some subterraneous commotion, the most considerable as to its results that has taken place in this kingdom for many generations. The river Aire, at Leeds, presented the effects of this phenomenon last Friday afternoon: the water that came down the river was in such a polluted state, as to have poisoned great quantities of fish; and the water, continuing in much the same turbid state, has become entirely useless for culinary purposes, as well as for dyers, &c. The commissioners of the water-works have given public notice to the inhabitants of Leeds, that they will at present suspend the supply of water so totally useless to them, until the stream subsides into a proper state.

In a country newspaper it is announced, that there is a society of Christians formed at Manchester, who have determined to refrain from animal food, and to live on vegetables.

Tales of the Crusaders, by the author of Waverly, is announced as preparing for publication.

It is a fact, that not one solitary epistle in the hand-writing of George II. is known to exist. This circumstance is more remarkable, if we refer to his gallantries and intrigues recorded by Walpole and by others. To Mr. Upcott, of the London Institution, and Mr. Dawson Turner, the banker at Yarmouth, the great collectors of autograph letters in England, the discovery and the possession of an original letter by this singularly odd monarch would be a *desideratum*.

Prideaux says, that gold and silver were much more plentiful in the time of David and Solomon, and 1,500 years afterwards, than they are at present; and that the mines of Arabia being exhausted, and the gold and silver with which the world abounded being wasted by the barbarians, the mines of Mexico, Peru, and Brazil, have not been able to repair the loss. He mentions two or three instances of the vast riches of private men in ancient times. Pythias, the Lydian, possessed gold and silver to the amount of nearly five millions sterling. Marcus Crassus, the Roman, after feasting all the people of Rome at 10,000 tables, and giving every citizen corn enough to last him three months, found the remainder of his estate to be equal to about 1,400,000*l*. Lucullus, a Roman Senator, used to expend 50,000 denarii (1,400*l*.) every time he supped in his hall of Apollo, and this was as often as any of the better sort supped with him. It has been computed that Nebuchadnezzar's golden image, and the various other images, utensils, &c., of gold, in the temple of Belus at Babylon, amounted in value to about 34,000,000*l*. Vast loads of gold and silver were often carried in triumph before Roman Generals, when they returned from conquered provinces. The gold with which Solomon overlaid the most holy place only, a room thirty feet square, amounted to more than 38,000,000*l*. Crito, a writer in *The Christian Spectator*, supposes also, that the

the amount of wealth was formerly much greater than at present. He notices the following instances:—The Israelites, soon after their escape from Egyptian bondage, offered for the tabernacle gold and silver to the amount of 170,000,000*l.* (Exod. xxxviii, 24, 25). This was probably borrowed of the Egyptians; but it shows that gold and silver were plenty in Egypt. The contributions of the people for the sanctuary, in the time of David, exceeded 6,800,000*l.* (1 Chron. xxix, 7.) The sum which Haman offered Ahasuerus, on condition of being permitted to order the destruction of the Jews, was 10,000 talents of silver, or 340,000*l.* (Esther, iii, 9.) The immense treasure David is said to have collected for the sanctuary (1 Chron. xxii, 14) amounted to 889,000,000*l.* (Crito says 798,000,000*l.*, but erroneously), a sum greater than the British national debt, and exceeding all the money coined since the discovery of America. It is supposed by some learned men, that David never amassed such an immense sum, and that an error has been made by the transcribers of this book. Prideaux conjectures that the talents of gold and silver given by David and others for the temple, might be of another sort, of far less value than the Mosaic talents. He remarks, that if these talents are valued by the Mosaic talents, they would have built the whole temple of solid silver. Crito estimates the talent of silver at 342*l.* sterling, and the talent of gold at 5,475*l.* sterling, according to Dr. Arbuthnot's "Tables of Ancient Coins," &c., inserted in the translation of "Jahn's Archæology."

Mines.—The following is the estimated produce of the different gold and silver mines in modern times:—Of gold, the mines of Europe produce, in sterling only 185,020*l.*; Northern Asia, 76,770*l.*; America the rest of the total of 2,467,260*l.* in the following proportions:—New Spain, 229,630*l.*; New Grenada, 672,500*l.*; Peru, 111,530*l.*; Potosi, and provinces east of Buenos Ayres, 73,180*l.*; Chili, 400,550*l.*; and Brazil, 980,870. Of silver, the total amount of which is 7,314,670*l.* Europe produces 484,580*l.*, and Northern Asia, 199,630*l.*; America furnishes the rest; New Spain, 4,945,340*l.*; Peru, 1,292,440*l.*; Potosi, &c. 1,019,070*l.*; and Chili, 62,820*l.*

New Engine Carriages.—Mr. Brown's New Vacuum Engine, noticed in our last, has already given rise to a speculation among a few gentlemen to establish a joint-stock company, for the purpose of contracting to run the mail-coaches and other carriages, by means of Mr. Brown's new engine. Two hundred thousand pounds are to be the nominal capital of the company; but, in the first instance, it is intended to raise only £2,000, for the purpose of building one carriage, and that no further sum shall be called for, until a carriage shall have been propelled, at the rate of ten miles per hour, as far as York and back to London.

Selection of Bengal Raw Silks.—The leading point which determines the value of Bengal raw silk, is the cleanness, or being free from knibs or knots known amongst the manufacturers by the appellation of "foul;" evenness of thread is also most essential, but silk free from foul will very rarely be uneven, and if foul cannot be even; indeed, the terms foul and uneven in this case may be considered synonymous. To judge if silk be clean, the best mode is to open the skein, and stand with your back to a window, so that you look down the extended silk in the same direction that the light falls; by this means you will easily perceive any foulness that exists, and a very little practice will enable any person, by a mere *coup d'œil*, to judge accurately upon this most essential quality of Bengal raw silk. The skein being well shaken should not exhibit any dust or loose ends. The different degrees of fineness and coarseness are denoted by the letters A. B. C.—Silk of 4-5 cocons is called A. No. 1; of 6-8 cocons A. No. 2: of 8-10 cocons B. No. 1; of 10-12 cocons B. No. 2; of 12-14 and 16-18 cocons B. No. 3; of 18-20 cocons C. No. 1; of 20-22 cocons C. No. 2; and of 22-24 cocons, &c. C. No. 3.—All filature silk, or that which is reeled in factories, is included within the above-named letters and numbers. but silk which the natives reel by hand is much coarser, and is marked by the letters A.B.C.D.E.—It must be understood that the A. 1 silk of one district in India will importantly differ in fineness from the A 1 silk of another district, dependent upon circumstances of climate, culture, &c. &c., thus Bauleah filature silk is inferior in fineness to Radnagore or Cossimbazar filature silk of corresponding letters, and Commercolly filature silk exceeds these, and so on. Each skein of raw silk should be gummed in one part, but not so much as

as to occasion it to adhere too strongly; a sufficient gumming causes the skein to preserve its regularity of thread, too much will cause the thread to break in the winding, during the operation of throwing or preparing for the hands of the consumers. The skeins should also be banded, or bound round in various parts with threads. The value of the Bengal raw silk is by no means to be estimated by the lustre or brilliance of colour. Many have been deceived upon this point, it therefore becomes the more necessary to guard against similar errors. That these qualities are not essential, appears, when we consider that the silk will be dyed before it is manufactured, when both will be necessarily changed. Silk of indifferent colour is often clear and even, which the manufacturers most regard in their purchases, while silk of superior lustre is sometimes deficient in these desirable points: still colour and lustre are not to be overlooked; when combined with cleanness and evenness they give an additional value to Bengal raw silk. Foul silk, in the winding, is continually liable to break at the knibs or knots, which renders the workmanship both unpleasant and expensive.

Hydrophobia may be cured by Vinegar.—A letter from an Italian gentleman at Venice to a friend in this country states that, "A poor man, lying under the frightful tortures of the hydrophobia, has been cured with some draughts of vinegar, given him by mistake. A physician of Padua tried the same remedy upon a patient that was brought to the hospital, administering to him a pound of vinegar in the morning, another at noon, and a third at sunset: the man was speedily and perfectly cured."

David's last Picture.—When David was on the eve of departing from Paris into exile, he is said to have told his pupils that he was about to alter and improve his style, and that he would send them from the Netherlands,—the country which he had chosen for his future residence,—a specimen of colouring, which should be far superior to any thing which he had heretofore produced. In the present picture, David has fulfilled his promise with a vigour of execution that could scarcely have been expected in youth itself. On this piece he has devoted his whole time during his exile at Brussels. The following description will enable your readers to form some idea of the composition of this piece:—Mars having returned fatigued from the field of battle, has seated himself on a couch, from which Venus has apparently partly risen, in order to make room for him. The latter has one hand resting on the former, and is with the other about to place a garland of flowers on the head of Mars, on condition that he forsakes for the future the pursuit of arms. Mars is with his left hand resigning his sword, as a token of assent to this proposition; and with the other, which is hanging over the head of the couch, holding a spear. Two of the Graces are taking hold of his helmet and shield, and the third presenting him with nectar. Cupid is seated at his feet, busily employed in unloosing one of his sandals.—The disposition of the whole scene is admirably conceived, though the arrangement is, in my opinion, rather too studied. The drawing is as chaste as it is beautiful; and the colouring, in variety, richness, and truth of tone, is truly admirable, and far superior in brilliance to any of his former productions. The head, body, and in short the whole person of Mars, are possessed of great beauties; but the Venus, though the back is beautiful and the feet admirable, is possessed of no portion of that melting voluptuousness which usually belongs to the Venus of Greece and Rome; for, instead of that, we find nothing but anxiety and dejection. Nor are the features of the Graces more agreeable; and the figure of Love is both misplaced and badly embodied. But in spite of these observations, I must acknowledge that, taking into consideration the great age of the artist, and the novelty of the style of the present undertaking to him, that it is a great work, and will always be admired, as a splendid specimen of colouring. This is said to be the last picture which David intends to undertake.

Portrait of Lord Byron.—We learn, from a correspondent in Italy, that a most beautiful portrait, representing the above noble poet after his death, has just been finished by M. Pezzanis, who is said to have been with that illustrious author the moment before he expired.

Cosmorama.—In point of principle, this exhibition is superior to the Diorama; but the execution of the paintings, generally speaking, is far from doing justice to the contrivance, which places them in so brilliant a point of view. This censure, however, is to be understood under some modifications.

A few of the paintings are highly interesting, both from the subject and the way in which they are treated. As instances of this, we may quote the View of the Tagus, which gives a greater idea of extent than we have ever before witnessed on canvas,—the Church of the Holy Sepulchre,—the View of St. Helena,—and the singular Excavation of Ellora, closed in by a cascade of water, which falls from the top in one broad sheet. By a simple optical illusion, the pictures are expanded and thrown into distances; and the spectator actually seems to be looking through the windows of his own apartment upon reality. We understand that one side of the exhibition is to be changed shortly; and amongst the novelties, it is said, are the Port de Fer at Antioch, the Ruins of the Palace of Zenobia, and a View of another subterranean Temple at Ellora.

The details of *practical geology* have just received an important acquisition, in *a vertical* SECTION (looking north) *of the* STRATA *across the great Lancashire coal-field, the high-peak hundred of Derbyshire*, and *the coal-field of Derbyshire and Yorkshire, &c. by* ELIAS HALL, *of Castleton, Mineral Surveyor; engraved by Lowry, on a large sheet:* William Phillips.—This line of section commences at Ormskirk, passes by Upholland, Wigan, West-Houghton, Worsley, Manchester, Stockport, Bullock-Smithy, Hoo-lane, Disley, Whaley-bridge, Chapel-en-le-Frith, Barmoor, Peak Forest (one mile south of Castleton), Bradwell, Abney, Offerton, Hathersage, Ringing-Sow Bar, Banner Cross, Sheffield, Attercliff, Tinsley, Rotherham, Thryburgh, HootonRoberts, Connisborough, Warmsworth, Balby, and Doncaster. All the principal seams of coal found in this extensive breadth of country are shewn, and their qualities and thicknesses mentioned; the strata of ironstone and of freestone, distinguishing the qualities and the chief quarries of each, and the various argillaceous strata of the coal-fields; the four limestone rocks, and three toadstone or basaltic strata which interlay them, and underline the coal-fields; and the two magnesian limestone rocks, and intervening red marl, which over-lie the coal field on the east —reference being made to "Farey's Agricultural and Mineral Survey of Derbyshire" for further details regarding these strata, and the structure of this curious district of country, than could, for want of room, be engraven on the margin of this section.

The celebrated Ugo Foscolo is preparing for publication a Treatise of Italian Classical Poetry, which is to consist of 20 vols. 8vo.

Mr. BLISS has in the press a Practical Treatise on Fruit Trees, from the Nursery upwards; with a description and enumeration of all the best Fruits now in cultivation; a full definition of the Apple-fly, commonly called the American-blight, which causes the Canker in Apple-trees, and its effectual Remedy.

Mr. C. C. WESTERN, M.P., has in the press "Practical Remarks on the Management and Improvement of Grass Land, as far as relates to Irrigation, Winter-flooding, and Draining;" and likewise a new edition of "Remarks on Prison Discipline," with plates; and an Appendix, containing a description of the Plans of a Prison to contain 500 persons; with a Copy of a Bill to render persons possessed of personal as well as real property, liable to serve on Juries for Counties; and an explanatory Statement of its objects and provisions.

We understand that there will be an early publication of the Historical Works of Sir JAMES BALFOUR, of Kinnaird, Lord Lyon, King at Arms to Charles the First and Second. From the original and hitherto unpublished manuscripts preserved in the Library of the honourable the Faculty of Advocates.

Dr. MITCHELL's Scotsman's Library, already announced, will appear, we understand, early in the month.

Three volumes of Legal Ana, with curious portraits and engravings, will be published in November, under the title of "Law and Lawyers," It is intended to serve as a popular appendage to the Law library, with reference to the history, biography, and anecdote of the profession.

Mr. GEORGE DOWNES, author of Letters from Mecklenburgh and Holstein, has just ready for publication a volume of poems, entitled "Dublin University Prize Poems," with Spanish and German Ballads, and other pieces.

With embellishments, in one volume large 8vo., Saint Baldred of the Bass, a Pictish Legend; the Siege of Berwick, a tragedy; with other poems and ballads descriptive of East-Lothian and Berwickshire, by JAMES MILLER.

The Doctrine of Election, viewed in connexion with the responsibility of Man as a Moral Agent. By the Rev. WILLIAM HAMILTON, D.D., of Strathblane, in 12mo.

JAMES

James Forbes: a Tale, founded on facts.

Prayers founded on the Liturgy of the Church of England.

The Confessions of a Gamester.

Mr. W. T. Brande has in the press, a Manual of Pharmacy, in one volume 8vo.

We have the pleasure of announcing that, by His Majesty's special command, will be published, early in the ensuing year, in one volume 4to., Joannis Miltoni Angli De Doctrina Christiana, Libri duo posthumi, nunc primum Typis Mandati, edente C. R. Sumner, M.A. At the same time will be published, uniform with the above, a Treatise on Christian Doctrine by John Milton, translated from the original by Charles R. Sumner, M. A., Librarian and Historiographer to his Majesty, and Prebendary of Worcester. This important and interesting posthumous work of Milton, and the translation, are now printing at the Cambridge University press.

The first volume of the Lectures of Sir Astley Cooper, Bart., on the Principles and Practice of Surgery, as delivered at St. Thomas's and Guy's Hospitals, with additional notes and cases, by Frederick Tyrrell, esq., Surgeon to St. Thomas's Hospital.

Old Heads upon Young Shoulders, a Dramatic Sketch in one act, by Thos. Wilson, teacher of dancing, author of the Danciad, &c.

Dunallan, or the Methodist Husband, in 3 vols. 12mo. By the author of "The Decision," "Father Clement," &c.

The Works of the Rev John Newton, late Rector of St. Mary, Woolnoth, &c., with a Life and View of his Character and Writings. By the Rev. Richard Cecil, a.m. A new Edition, in 6 vols. 8vo.

A New Edition of Hervey's Theron and Aspasio, in 2 vols. 8vo.

The History of Origins will shortly be published in a neat portable volume, comprehending a collection of antiquities, historical facts, customs, political and social institutions and national rites and peculiarities.

As an antidote against the pretended Popish Miracles, relations of which fill the Journals of Europe and stagger even incredulity, a New Edition is reprinting of those masterpieces of argument, learning, and eloquence, Dr. Conyers Middleton's Free Enquiry and Letter from Rome. They will form a handsome octavo volume.

Monsignor Marini, Prefect of the Vatican Archives, has completed his Monumenta Authentica Angliæ, Scotiæ, et Hiberniæ. This work will extend to eight volumes folio; and contains above five thousand Papal Letters, besides other precious documents, almost as numerous, of letters from our Kings and Queens, transcribed from the Autographs, from the time of Pope Honorius III. A.D. 1216 to a recent period. The whole are faithfully copied from the authentic register of the Vatican; and none of them have been hitherto published. Such articles as have correctly appeared in Rymer and our historians, are omitted in the present work.

The Sisters of Nansfield, a tale for young women, by the author of "the Stories of old Daniel," &c., is in the press.

Fireside Scenes, by the author of "the Bachelor and Married Man."

Mr. Boaden's Life of Kemble may be expected soon. Under this name we understand it contains, in fact, a complete history of the stage during Kemble's career as an actor. Several very valuable documents have been supplied by the family and their friends.

An outline Sketch of a new Theory of the Earth and its Inhabitants, by a Christian philosopher, is announced.

A History of Art, and Biography of its Professors, upon a very comprehensive scale, is preparing, by Mr. George Soane, son of the distinguished architect of that name. The first division of the work will contain the History of Art, from its earliest dawn, tracing its progress and advancement in the different branches of architecture, painting, and sculpture, with critical dissertations upon the several schools. The second division will be devoted to the Biography of Artists, and is proposed to form the most complete Dictionary of Painters, Architects, and Sculptors ever offered to the English reader.

Travels of General Baron Minutoli in Lybia and Upper Egypt, are announced.

The History of Italy, from the fall of the Western Empire to the extinction of the Venetian Republic, is preparing by George Perceval, esq.

A History of the French Revolution, by A. Thiers and Felix Bodin, will speedily be published in London.

A Chronological History of the West-Indies is announced; by Capt. Thomas Southey, R.N.

Letters of Horace Walpole to the Earl of Hertford during his Lordship's Embassy in Paris are printing.

A display of the Commercial Power of Great Britain, by Charles Dupin, is in the press, under the direction of the author.

The Rev. Dr. Wordsworth, Master of Trinity College, Cambridge, has in the press a work on the question relative to the author of the "Icon Basilike," in two Letters to his Grace the Archbishop of Canterbury.

A History, Directory, and Gazetteer of the County Palatine of Lancaster, is in the press.

The Emigrant's Note Book and Guide, with Recollections of Upper and Lower Canada during the late war. By Lieut. J. C. Morgan, will soon be published.

Sermons and Charges, by Thomas Fanshaw Middleton, D.D., Lord Bishop of Calcutta, with Memoirs of his Life, are preparing. By H. K. Bonney, 8vo.

FRANCE.

The celebrated Dr. Wolf, of Berlin, died lately at Marseilles, whither he had gone for the benefit of change of air. He was sixty-six years of age; and favourably known throughout Europe for his excellent editions of the Greek and Latin Classics, with his own erudite notes.

NORTH AMERICA.

The great Canada Ship.—The following is from the *Quebec Mercury* of the 31st July:—

The long-expected launch of the great ship took place on Wednesday morning last, at the point of the island of Orleans, in presence of a large concourse of people. The St. Lawrence, which but a few years ago, comparatively speaking, had borne on its waves only the rudely-constructed canoe of the native Indian, has now floating on its waters the largest ship in existence, or of the building of which for navigable purposes we have any authentic record. This immense vessel has, with great propriety, been named *The Colombus*. Her dimensions are as follow:—length, 300 feet; breadth of beam, 50 feet; and depth of hold, 30 feet. Her model is also as extraordinary as her dimensions, being precisely that of a Canadian batteau; that is, perfectly flat-bottomed and wall-sided, the stem and stern post nearly or altogether perpendicular, and both ends sharp alike, without any fulness, as is the case in the bows and sterns of ships of the usual construction: so that her floor may be compared to a parallellogram, with an acute, equicrural triangle at either extremity. Her tonnage by register is 3,690 tons; but she is thought to be capable of carrying at least 6,000 tons freight: her stowage is somewhat embarrassed by the massy beams which connect her side-timbers, or she would probably freight 7,000 tons. This ship has been an object of general curiosity since she was first laid down; her dimensions so far exceeding any which have yet been attempted in the largest ships of war, that even a faithful report of the bulk was received with suspicion, and a number of vague stories were set afloat as to the intentions of the builders in framing this wonderful craft. It was imagined by many that a solid mass of timber was to be built in something like the shape of a vessel, and covered with an outward sheathing of plank sufficiently strong to render her capable of traversing the ocean at a favourable season, when good weather might be expected. But as the work advanced, it became evident, from the regular plan pursued, and the solid manner in which her massy frame was connected, that something more was intended than a mere ship-shaped raft. She is now a complete vessel, and it is expected will prove sufficiently manageable, but will not probably perform more than one voyage. Every precaution has, however, been taken for the safety and comfort of those who are to navigate her; her cabin and a safety-room being prepared, that should the vessel by any means become water-logged, the crew would endure but little inconvenience. Many persons entertained doubts of the possibility of launching this stupendous fabric; and there was not wanting those who affirmed that she would never float, but remain on the blocks where she was built—a monument of the presumptuous folly of the projectors. The events of Wednesday proved how much the wonderers and doubters had been mistaken, and shewed how ably the work had been conducted, and how minutely and justly the builder had made his calculations. At half-past or thirty-five minutes past seven, this ponderous mass was put in motion with as much facility as any smaller vessel, and slid majestically into the St. Lawrence. The length of the ways was somewhat less than 600 feet; and precisely one minute elapsed between the period when she moved and that of her reaching the water,—her entrance into which was greeted by appropriate airs from the military bands in attendance, and repeated salutes from the guns of the steam-boats, and some which had been planted on the shore for that purpose. Her ways was much scorched by the friction of her motion, and so great a smoke arose, that distant spectators imagined some accident to have taken place.

From

From her peculiar construction in the wedge-like form of her stern, and the small proportion her breadth bears to her length, she created but little swell: even the smallest boats were hardly tossed, and no sensible motion was experienced on board the steam-boats and larger vessels. Three of her four masts were standing, that is, the first and second main-masts, and her trysail-mast. The sheers were also put up for stepping the foremast, and her bowsprit was in. The whole of these appear so small, when compared with the bulk of the hull, that they look like jury-spars: her mainsail is not larger than that of a small seventy-four. As soon as she lost way, she was taken in tow by the steam-boats, *Swiftsure*, *Lady Sherbrooke*, and *Malsham*, and conducted to the Montmorenci Channel, where she dropped her anchor, which did not appear to us larger than we have seen on board a first-rate ship of war: the weight is 78 cwt. 2 qrs. The day was remarkably fine, and the river presented an animated spectacle—no less than seven steam-boats, and an amazing number of rowing and sailing-boats being upon the water.

AFRICA.

The first number of the *South African Journal*, published at the Cape of Good Hope, contains some very interesting details respecting the lions of that country. The writer says, that beyond the limits of the colony, they are accounted peculiarly fierce and dangerous, and he thinks Mr. Barrow's representation, that they are cowardly and treacherous, is a conclusion drawn from limited experience or inaccurate information.

The prodigious strength of this animal (he observes) does not appear to have been overrated. It is certain that he can drag the heaviest ox with ease a considerable way; and a horse, heifer, hartebeest, or lesser prey, he finds no difficulty in throwing over his shoulder and carrying off to any distance he may find convenient. I have myself witnessed an instance of a very young lion conveying a horse about a mile from the spot where he had killed it: and a more extraordinary case has been mentioned to me on good authority, where a lion, having carried off a heifer of two years old, was followed on the track for five hours, above thirty English miles, by a party on horseback; and throughout the whole distance, the carcase of the heifer was only once or twice discovered to have touched the ground. The Bechuano Chief, old Peyshow (now in Cape Town), conversing with me a few days ago, said that the lion very seldom attacks man if unprovoked; but he will frequently approach within a few paces and survey him steadily; and sometimes he will attempt to get behind him, as if he could not stand his look, but was yet desirous of springing upon him unawares. If a person in such circumstances attempts either to fight or fly, he incurs the most imminent peril; but if he has sufficient presence of mind coolly to confront him, without appearance of either terror or aggression, the animal will in almost every instance, after a little space, retire. The overmastering effect of the human eye upon the lion has been frequently mentioned, though much doubted by travellers; but, from my own inquiries among lion-hunters, I am perfectly satisfied of the fact; and an anecdote related to me a few days ago by Major Macintosh, proves that this fascinating effect is not restricted to the lion. An officer in India, well known to my informant, having chanced to ramble into a jungle, suddenly encountered a royal tyger. The rencontre appeared equally unexpected on both sides, and both parties made a dead halt, earnestly gazing on each other. The gentleman had no fire-arms, and was aware that a sword would be no effective defence in a struggle for life with such an antagonist! But he had heard that even the Bengal tyger might be sometimes checked by looking him firmly in the face. He did so. In a few minutes, the tyger, which appeared prepared to make his final spring, grew disturbed—slunk aside—and attempted to creep round upon him behind. The officer turned constantly upon the tyger, which still continued to shrink from his glance; but darting into the thicket, and again issuing forth at a different quarter, it persevered for above half an hour in this attempt to catch him by surprize; till at last it fairly yielded the contest, and left the gentleman to pursue his *pleasure walk*. The direction he now took, as may be easily believed, was straight to the tents at double quick time.

After relating several terrific stories of encounters with lions, the writer concludes his article with one, not quite so fearful, related by Lucas Van Vuuren, a Vee Boor, his neighbour at the Bavian's river.

Lucas was riding across the open plains about daybreak, and observing a lion at a distance, he endeavoured to avoid him by making a circuit. Lucas soon perceived that he was not disposed to let him pass without further parlance, and that he was rapidly approaching to the encounter, and being without his *roer* (rifle) and otherwise little inclined to any closer acquaintance, he turned off at right angles—laid the sambok freely to his horse's flank, and galloped for life. The horse was fagged, and bore a heavy man on his back; the lion was fresh, and furious with hunger, and came down upon him like a thunderbolt! In a few seconds he overtook Lucas, and springing

springing up behind him, brought horse and man in an instant to the ground. Luckily the boor was unhurt, and the lion was too eager in worrying the horse to pay any immediate attention to the rider. Hardly knowing himself how he escaped, he contrived to scramble out of the fray, and made a clean pair of heels of it till he reached the nearest house. Lucas, who gave me the details of this adventure himself, made no observations on it as being any way remarkable, except in the circumstance of the lion's audacity in pursuing a "Christian man" without provocation in open day! But what chiefly vexed him in the affair was the loss of the *saddle*. He returned next day with a party of friends to take vengeance on his feline foe; put both the lion and saddle had disappeared, and nothing could be found but the horse's clean-picked bones. Lucas said, he could have excused the *schelm* for killing the horse, as he had allowed himself to get away, but the felonious abstraction of the saddle (for which, as Lucas gravely observed, he could have no possible use), raised his spleen mightily, and called down a shower of curses whenever he told the story of this hair-breadth escape.

GREECE.

There has been found in Greece, in digging the ruins of a temple dedicated to Saturn, a great number of manuscripts that date from very remote periods. In Macedonia, we are assured, has been discovered the manuscript of the famous *Iliad*, inclosed in a cedar box, with plates of gold, which belonged to Alexander the Great!

EGYPT.

M. Champollion, jun., having proceeded to Turin under the auspices of his Majesty, to study the collection of Egyptian antiquities brought together by M. Drouette, and forming at present the Royal Egyptian Museum of the King of Piedmont, has already made known some of the principal monuments of this museum. We extract the following communications from his letters:

By the kind permission of his Excellency Count Chale, Minister of the Interior, I have gained admission to the Royal Egyptian Museum. I had previously admired, in the palace of the university, a fine statue of Sesostris, in rose granite, eight feet high; the upper part of a statue of the wife of that king, the Queen Ari; and another statue with a lion's head, similar to two statues in the Museum of Paris, and bearing an inscription of the reign of Amenophis II. It was on the 9th June that I visited for the first time the Egyptian Museum; nothing is comparable to this immense collection. I found the court crowded wtth colossal figures in rose granite and green basalt. The interior is also peopled with colossal monuments. A first examination discovered to me a group of eight feet in height; it turned out to be Amon-Ra, seated, having beside him King Horus, son of Amenophis II. of the eighteenth dynasty—an admirable work; I had seen nothing equal to this. 2dly. A colossal statue of King Misphra-Thouthmosis, in the same state of preservation as when it issued from the workshop. 3dly. A *Monolith* six feet high; it represents Ramses the Great (Sesostris), seated upon a throne between Amon-Ra and Neith, of rose granite, and is a perfect work. 4thly. A colossal figure of King Mœris, green basalt, of exquisite workmanship. 5thly. A statue, erect, of Amenophis II. 6thly. A statue of the god Phtha, executed in the time of the last-mentioned king. 7thly. A group of free-stone, representing King Amenoftep, of the nineteenth dynasty, and his wife, Queen Atari. 8thly. A statue, larger than life, of Ramses the Great (Sesostris), in green basalt, finished like a Cameo; upon the steps of the throne are sculptured, in full relief, his son and wife. The number of funeral statues in basalt, red and white free-stone, white calcareous stone and grey granite, is very considerable; amongst them is one of a man crouching, whose tunic bears an inscription in the Egyptian vulgar tongue, of four lines. The *steles* of four, five, and six feet in height, exceed the number of a hundred; there is an altar covered with hieroglyphic inscriptions, with a great number of other objects of antiquity. This comprizes only one part of the collection, and there remain two or three hundred packages to be opened. The number of manuscripts is one hundred and seventy-one, of which forty-seven are already unrolled. Among these I have discovered about ten contracts in the Demotic writing, a Greek papyrus, and a law-suit between two inhabitants of Thebes relative to the ownership of a house; the pretensions of the parties pleading and the means of the advocates are analysed, and the laws favourable to their respective pretensions textually cited. At the end is the actual judgment, which was delivered in the fifty-fourth year of Ptolemy Evergetus II. A bilingual inscription in Egyptian and Greek, and a decree in honour of a prefect of the township of Thebes, and rendered under the reign of Cleopatra and her son Cesarion, whose name I had already proved the actual reign by the perusal of a scroll sculptured upon the temple of Dendera. But that which is most interesting is that among the papyrus of the collection, is a *Phenician Manuscript;* unfortunately there are but fragments of it, but perhaps others may be found amongst those not yet unrolled.

NEW BOOKS PUBLISHED IN SEPTEMBER:

WITH AN HISTORICAL AND CRITICAL PROËMIUM.

Authors or Publishers, desirous of seeing an early Notice of their Works, are requested to transmit Copies before the 18th of the Month.

Journal of a Residence in Ashantee. By Joseph Dupuis, Esq. 4to.

GREAT Britain seems to be particularly unfortunate in its warlike transactions with uncivilized nations. In India, the matter is at best doubtful; at Algiers, we gained a victory that was marvellously like a defeat; and, at Ashantee, we have been fairly beaten out of the field, owing life and liberty to the mercy of a black conqueror. Our merchants, too, are just as unsuccessful as our military: they lie and shuffle, and cringe and bluster; but neither brown nor black are any longer to be cajoled by them. The thing is incomprehensible; but so it is;—and while a handful of Spaniards could subdue the powerful kingdoms of Peru and Mexico, the British forces are cut to pieces by a few thousand negroes, that can hardly comprehend the mechanism of a musket.

But this work of Mr. Dupuis, who was sent by our government on a mission to Ashantee, in some measure explains the mystery; for, if it does not shew us wherein the blacks were strong, it at least shews us wherein the whites were feeble. Such a scene of fraud, and vacillation, and pusillanimity, of eagerness to offend and slowness to resist, of appetite to gain power and inability to use it when gained, is scarcely to be matched even in our Indian annals; and we well know what we hazard in the assertion. Without going all the lengths with Mr. Dupuis, or supposing that the governor was actuated by any motives of private interest, we can yet see more than it would be proper to set down with the present law of libel before our eyes. Every thing seems to have been conducted with the meanness, but not with the honesty, of the counting-house; and the obstinacy, which provoked the contest, seemed to desert the British council at the only moment when obstinacy could be deemed a virtue.

The single suspicious point in Mr. Dupuis' narrative is when he turns from European vice to African virtue. We give him full credit for his picture of mercantile treachery; but can hardly believe in the gentleness and magnanimity of his black monarch, who seems more like the hero of a novel than the ruler of a set of curly-headed savages. Bating his religious propensity to sacrifice his subjects, and bating his ambition—a very orthodox virtue in a king—he seems to have been the most amiable creature breathing—full of meekness and forbearance,—enough to have furnished out ten reasonable Christians. Surely this picture must be somewhat overcharged. Savage or semicivilized life has, indeed, its virtues; but meekness is not one of them.

The second portion of the work is devoted to the elucidation of the geography of Western Africa, and adds something, but not much, to our stock of knowledge on the subject. It is chiefly made up from the information of the Moslems, settled at Coomassie, whom Mr. Dupuis considers to be the best authority; and, perhaps, they may be: but the best, then, is inadequate to the subject. In regard to the long-disputed course of the Niger, for instance, we are told, that "the great flow of water is easterly to the Egyptian Nile;" but of what value is this assertion, when he is afterwards obliged to add, that "none of his instructors had ever tracked its course beyond the western limits of Bournou?" The fact is, these Moslems know as little of the interior of Africa, as a Londoner might be supposed to know of the Highlands in the time of Queen Elizabeth: if, indeed, they know so much, it would be surprizing. Knowledge of any kind must lie directly in a Moslem's road; for he would not step an inch out of his way to pick it up, though it were the wisdom of Solomon. Founded on such authority, this part of the book must be used with great discretion, and no more believed than is actually proved: yet even then it will remain a work of great interest, and some substantial information.

Topography of all the known Vineyards.—This is an exceedingly clever little volume, an abridged translation from the French, and one that cannot fail to interest at least three classes of readers: those who sell wine, those who buy wine, and those who think that information is always worth something only as information. It contains a minute account of every sort of grape, where grown, how used, and of what qualities, not only in France, but in every country throughout the four quarters of the globe, though the bulk of the work is certainly dedicated to French wines. It should seem that, until the appearance of this work, our neighbours knew little more about their own vineyards than we now do in England; and a lower measure of knowledge could not easily be found. We speak it in all the truth and fervour of unaffected epicurism—scarcely a wine comes up to our tables under its real name. A fine title will often satisfy the most experienced in such matters.

We hardly know whether it will be deemed a merit or not in this work; but it is absolutely devoid of all chemical details, or of what may be called literary merit: perhaps the occasion called for neither; and if a plain statement of facts, on a subject not generally understood, have any value, this book must be valuable; and as such, we strongly recommend it to our readers.

Mémoire et Rapports sur les Fumigations sulphureuses, par J. C. Galès, Docteur en Médecine de la faculté de Paris. Imprimés par ordre du gouvernement. A Paris. 1816. 8vo. pp. 137.

The Utility of Fumigating Baths, for the Cure of Gout, Rheumatism, Paralytic Affections, Bilious and Nervous Disorders, &c. By Jonathan Green, Member of the Royal College of Surgeons, 8vo. pp. 115. London. 1823.

The general inutility of medicine, except to the vendor, is beginning to be pretty well understood, and though death goes on much at his usual rate, the sick are allowed at least the privilege of dying on easier terms than heretofore. In fact, they are now permitted to go off by the course of nature, instead of being poisoned, and that is something, for after all it is better to die of a fever than a fever-draught. We hear no longer of Mithridates and Theriacs, those ingenious combinations of fifty ingredients, all of the most opposite properties, put together upon the pleasant principle that, if one does not cure, another will, for upon no other ground can we account for those monstrous aggregates of the *materia medica*. But even now the art is infinitely too much perplexed in its nosology, and its pharmacopœia is loaded with superfluities, simple as well as compound; strip the thing of its technical mysteries and the causes of disease will be found few in number, though its forms may be many, while as to medicine we shall soon see that it is effective only as it accelerates, or retards, the action of some particular organ. The value of a medicine, therefore, is in proportion to its capability of bringing about one or the other of these effects, and the next question is as to the mode of its application, whether it shall be applied to the *mucous*, or *cutaneous*, surface, that is to the internal or external. The strictest analogy exists between these two organs; whether we consider their structure, their properties, their sympathies, or even their general functions, and we sometimes find that the one will take the character of the other: but notwithstanding this analogy, it makes a material difference to which we apply a medicine, for in the one case it is considerably altered by the juices of the stomach, and in the other *is taken up at once into the constitution*. Accordingly, we find that efforts have been made from the earliest periods to administer by friction the most active medicines, such as sulphur, opium and mercury; but even this remedy had its evils: the grease employed in it choked up the delicate pores, and thus either materially retarded the effect of the medicine, or itself created a disease; for it is scarcely possible that the capillary tubes of the skin can be closed without some consequent derangement of the internal functions. Any plan, therefore, which will convey the virtues of medicine through the pores becomes a desideratum, and a plan of this kind has been brought forward, or, to speak more correctly, revived by Dr. Galès, of Paris, for the beneficial effects of sulphur, applied to the body in a state of vapour, have been known for ages. Moreover, a natural gaseous-bath has long existed on the lake of Agnano, near Naples, where an exhausted volcano spontaneously pours forth the vapour through many rifts in the earth, which is then collected in apartments for the use of patients.

But though the remedy was thus generally known, it was never effectually nor extensively used, till introduced into France by Dr. Galès, who received, in consequence, from the government a pension of 6,000 francs per annum. His object at first was only the cure of cutaneous diseases, and in this it was found almost uniformly successful, whatever might be their nature. The most inveterate cases of leprosy, of psora, and that horrible class of eruptions known under the name of *Dartres*, gave way to this powerful remedy, which seemed to possess a certainty, belonging to no other medicine. A little time too shewed that its influence was by no means confined to diseases of the skin; amongst the various patients who applied for the relief of psora, many, as might be expected, laboured under other disorders, such as sciatica, palsy, rheumatism, or glandular obstructions; and these too were unexpectedly found to yield to the fumigation, which had been administered without the least reference to such affections. Success, so complete in itself, and so extended in its objects, would hardly be credible, if it were not confirmed by the first physicians and authorities in Paris; not that there is any thing opposite to sound reason in the application or its effect, but that we have no other example of any medicine being so universally efficacious. The assertion of any one person, however reputable, is hardly to be credited against our general experience of facts, but the concurring testimony of so many individuals to the same point, and who could have no motive for deception, forms an evidence that cannot be disbelieved without overstepping the bounds of a rational incredulity.

It does not appear that Dr. Galès, in the first instance, adopted this powerful agent upon any just or general principle. In examining the pustular matter of the psora, he

he found that those writers were correct who attributed its creation to an insect lodged beneath the skin, from which he concluded that it was a local disease requiring the external use of medicines. Hence too he inferred the use of sulphur in its most volatile form as the surest mode of destruction to the insect; and thus far he was right; but he does not seem to have had the slightest idea that he was producing a beneficial effect on the whole constitution by cleansing the pores and determining the action of the blood towards the surface. Yet this is one of the principal effects of either sulphurous or chlorine fumigations, which excite profuse perspiration without the least danger of cold to the patient; for while they open the pores they stimulate the internal functions, and keep up a grateful glow over the whole body for at least twelve hours after the use of the bath. Here too we see the cause of its prodigious influence in all cases of chronic disease, and even in nervous affections that at first sight would seem to indicate a contrary treatment.

Galès' baths in the outset were extremely inconvenient, and it is probable that the remedy would have again fallen into neglect from the aukwardness of its application, had not Dr. D'Arcet soon after invented the simple mode of fumigation which is now in use; but thus improved, its influence spread rapidly; it was adopted in Vienna by the celebrated De Carro, and about the same time in Dublin by Sir Arthur Clarke and by Mr. Wallace, the latter of whom employed it, not only with sulphur, but with chlorine. The success with chlorine fumigation in cases of diseased liver was altogether as astonishing as that of sulphur in cutaneous eruptions, &c., yet still it was not till long after that this powerful agent found its way to England, and then was received only in a single charitable institution. Here too the reports of its efficacy were no less favourable than they had been before in Paris, Vienna, and Dublin, but without giving any popularity to the system, nor was there any other public or private establishments for its application, till within the last few months, when, according to our second pamphlet, Mr. Green prepared a suite of baths in Bury Street, St. James'. It is not usual for England to lag so far behind her neighbours in any rational improvement; the business, however, seems to be in good hands, for Mr. Green writes like one who is a thorough master of his subject, caring less about form than facts, and never stepping beyond actual experience.

As to the ultimate success of the system in this country there can be little doubt. The internal application of medicine has been found in many cases utterly inadequate to its object, more particularly in cutaneous eruptions and chronic diseases of all sorts, which have never been cured, and not often mitigated, either by pill or draught, though the intervals of such maladies have been with great kindness attributed to the physician. A wide field, therefore, is open to a remedy like this, which has been so often tried, and so uniformly found effectual. It comes besides in a rational and tangible form, and though in the natural course of things it must find some instances of disease to baffle all its power; yet from the evidence before us, it is fair to conclude that it will be as decisive as mercury is, where mercury is most decisive.

Memoirs of the Rose. 12mo.

THE broomstick has had its meditations, and why not the rose its memoirs? The one lives in our recollection only as it is connected with that odious patron of learning, birch,—while the rose is a creature of smiles and gaiety, and, therefore, much more worthy of an historian.

The rose, here memorialized, is neither of York, nor of Lancaster, neither red nor white, but the representative of the whole race. We have the tale of her birth and education in twenty sentimental letters to "*my dear Anne;*" and notwithstanding some formidable scraps of Latin, and one mysterious looking word in Hebrew, these same letters are very pretty reading for any young lady, who has got rid of her doll, and not yet got a lover. The book, in short, is what old people would call a good book: and, like my Lady Bountiful's distillations, if it does no good, will do no harm.

Our biographer is, of course, a warm admirer of the rose, and he quotes precedents from all sides to justify his admiration, for there is nothing like authority in matters of belief, be they of what kind they may. He calls in religion as well as poetry, Pagan as well as Christian, offering a very agreeable jumble of prose and verse, the Bible and Anacreon, Shakespeare and Bilderdyk, Hafez and Barry Cornwall. Those worthy folks, if they could wonder at any thing, must wonder prodigiously at such a meeting. Above all, we cannot conceive how Master Barry Cornwall ever contrived to get into such company; we are sure he must feel ill at ease.

We have yet another wonder in our minds, for ignorance will wonder. How happens it that in a book devoted to the celebration of the rose, Lord Byron is excluded, who yet has written more sweetly on the subject than any poet excepting Shakspeare? Was his Lordship's character against him? Could not the poet of Don Juan be trusted so near to "my dear Anne?" We fear our biographer is somewhat of a purist, a little too straight-laced in his morals, and yet, with the usual contradiction of his sect, while he excludes Byron and reprobates Chaucer, he quotes from that seductive spirit, Moore, whose

verses have done as much mischief among the ladies as any recruiting officer in a country-town. Surely, if "my dear Anne" is insensible to Moore, she is in no danger from Don Juan. Then, as to Chaucer, we think him extremely ill-used; he is pronounced to be "rugged and verbose," and to write in "an almost obsolete language," which offers "an almost insuperable bar to the perusal of his poems." To this assertion of "rugged and verbose," we give the reply valiant—it is not true; and as to the language opposing "an insuperable bar," it opposes no bar except to ignorance. Chaucer has few serious difficulties to any one who really understands the English language, a degree of knowledge, which *we* at least are not hardy enough to deny the ladies.

Tales of a Traveller. By GEOFFREY CRAYON, Gent. 2 vols.

IT has been said of Irwin, as of many other authors, that he does not write for posterity; upon this point we will not pretend to decide, not knowing what may be the taste of posterity, or whether it may have any taste at all; but, if to be read by all his contemporaries, high and low, wise and simple, be enough to satisfy an author's ambition, Master Geoffrey Crayon is a very happy man. We hardly know of any writer who is so universally read, and so little censured; he seems to have bought golden opinions of all men, though we think he has given them plenty of dross for their gold, or, to say the least of it, mere tinsel. But so the fact is: the Americans admire him, because he is an American; the Scotch and Irish, because he is not an Englishman; Mr. Murray, because he writes what will sell; and the English, because it is the fashion—reason enough in London for the admiration of any thing.

The present volumes are distinguished by Irwin's usual elegance, and by a quaintness of exaggeration, which, though not precisely either wit or humour, is something akin to both. The stories themselves are not much, either for novelty or matter; the style is every thing; and, as far as prose can be said to resemble poetry, it is like the poetry of Campbell. There is something extremely similar in the genius, or rather talents of the two, for neither can pretend to that higher quality of mind which is usually comprehended under the name of genius; there is the same fastidious elegance in either, the same want of energy; they please, but do nothing more than please, without exciting a single emotion, or adding any thing to the stock of our ideas. Their works seem less to be novelties than elegant editions of what others have expressed before them; and if they would not slip out of the memory of the generation, they must go on writing incessantly, no very hard condition of fame, considering the depth of Mr. Murray's purse, and the extent of the English Dictionary. At every step, we are reminded of some familiar author; Goldsmith is the animating spirit of the humourous tales, and in those of terror, Mr. Irwin can even condescend to borrow of Lewis; the story of the *Belated Travellers* is no more than a very indifferent version of Don Raymond's narrative in the *Monk*, which had been already imitated by Maturin in his "*Family of Montorio*," and which, whatsoever might be its merits, did not need to be served up a third time to the public. An attempt is, indeed, made to give a new appearance to several tales of this kind by an abrupt and ludicrous catastrophe, but though the joke may tell once, it will hardly bear a repetition.

Fifteen hundred pounds have, we understand, been the remuneration of these fortunate volumes, and there seems to be no reason to doubt the prudence of the speculation.

A Tour on the Continent. By Roger Hogg, Esq.—This is a very slight sketchy volume, but sufficiently amusing for the hour. Mr. Hogg carries his readers through France, Switzerland, and Italy, simply stating facts as they actually occurred to him, without any attempts to be either profound or descriptive. He does not appear to have seen any thing out of the common beat of tourists; but what he has seen, he tells truly and unaffectedly.

Effigies Poeticæ. — The author of this work has united the very opposite modes of judging men, by the rules of Lavater and the rules of Aristotle, by what they looked and what they wrote, and, as might be expected, is sometimes not a little puzzled to reconcile a poet's face with his talents. The physiognomical part is, we suspect, nothing more than a bait *ad captandum*, a mere novelty in the mode of administering criticism, to make it go down the better, and at the same time give an air of originality to the whole. As to the criticism, independent of this connexion, it is made up of brief assertion, and the worth of assertion, without proof, must depend upon the worth, real or supposed, of him who makes it; had the author only favoured us with his effigy we might have profited by his example, and condemned or absolved him by the length and breadth of his forehead.

Typographia. By JOHN JOHNSON, Printer.

The old connexion between the printer and the scholar, so long broken off, seems to be reviving in our age; a connexion so natural and so truly useful, that the only wonder is how it ever could have been interrupted. It matters not how much or how little a bookseller knows of what he is to sell; his want of knowledge hurts no

one

one except himself; but a printer can hardly be ignorant, without some mischief to the author that is to pass through his hands, and finally to the purchaser. There are some, indeed, friends to ignorance in general, who are of an opposite opinion: they fancy that a printer who can only read, without understanding, is more likely to be correct than one who comprehends what he puts together. But this prejudice in favour of ignorance is limited to a few, and may be expected to go out of fashion with wigs and Chancery suits.

In the first of these volumes we have a history of printing and printers, with a succinct and very amusing account of the earliest efforts of the press. Brief extracts, too, are given from the old authors preserved in these venerable specimens of typography, which, to the uninitiated in such matters, must be extremely curious. Sometimes, indeed, they are of a higher quality, —as, for instance, in the following lines from

THE FIFTENE JOYES OF MARYAGE.

Somer passed, and wynter well begone
The dayes short, the darke nyghtes longe
Have taken season, and bryghtnes of the sonne
Is lytell sene, and small byrdes songe
Seldom is herde, in feldes or wodes rouge
All strength and vertue of trees and herbe sote
Dyscendynge be, from croppe into the rote.

And every creature by course of kynde
For socoure draweth to that countre and place
Where for a tyme, they may purchase and fynde
Comforte and reste, abydynge after grace
That clere Appolo with bryghtnes of his face
Wyll sende, whan lusty ver shall come to towne
And gyve the grounde, of grene a goodly gowne.

And Flora goddesse bothe of whyte and greene
Her mantell large over all the erthe shall sprede
Shewynge her selfe apparayled like a quene
As well in feldes wodes as in mede
Havynge so rich a croune upon her hede
The whiche of floures shall be so fayre and bryght
That all the worlde shall take thereof a lyght.

The second volume is more *professional*, and will probably be *caviare* to the multitude. It transplants us into the very penetralia of the printing-office,—lays open the whole mystery of quadrats and composing-sticks,—of plattins and dogs,—tympans and friskets,—and, in short, is a complete history of all that ever has been, or ever can be, said upon the subject.

In fact, it is not only a valuable addition to every library, but even an essential, and does infinite credit to our friend John Johnson, printer, or, as he styles himself, typographer, — certainly a much higher designation than the humble word printer — two feet higher, — and that is no slight matter in these ambitious days, when actors are *professors*, and gentlemen bruisers teach the *science* of defence. Then, too, his press is the Apollo press, Holborn! But, alas! that villainous Holborn spoils all. Apollo in Holborn! We should as soon expect to meet a dowager-duchess in Dyot-street: there is no keeping in the thing!

It would be advisable, too, that he should not speak quite so favourably of himself; however fond a man may be of hearing his own praise, he had better hear it from the mouths of other people; and in common prudence he should not demand that as a right, which is willingly conceded only as a favour. The world is always much more ready to *give* than to *pay* praise; in fact, it would fain be deemed liberal, and there is no liberality in paying a demand, though there may be in the donation of what is not even solicited.

We should like, also, to know whether the portrait of John Johnson, in the second volume, is the portrait of John Johnson of the Apollo Press? If so, we hope it is not a likeness.

Moments of Forgetfulness. By Thomas Clare.—Lord Byron had his *Hours of Idleness*, and Mr. Thomas Clare, in a smaller way, has his *Moments of Forgetfulness*; and there is exactly the same proportion in the quality of the respective works: Byron's poem was not good, and Clare's poem is about sixty times below that measure. It should seem as if the Northamptonshire poet had turned out the sweepings of his writing-desk, the rejected of magazines and booksellers, and published them in this way to get rid of them. It is a pity he does not remember that, at the same time, he may get rid of his reputation.

LIST OF NEW BOOKS.

CLASSICS.

Homeric and Pindarric Lexicon. Novum Lexicon Græcum Etimologicum, Auctore Christ. Tob. Damm, 1 vol. 4to. £4 4s.

The Tragedies of Sophocles, literally translated into English Prose, from the Greek Text of Brunck, with Notes. 2 vols. 8vo. 15s. boards.

Cicero de Republica. Recovered Treatise of Cicero. 8vo. 12s. boards.

EDUCATION.

My Children's Diary. 1 vol. 12mo.

A Mother's Portrait, sketched soon after her decease, for the study of her Children, by their surviving Parent. 1 vol. 12mo. with a plate, 4s. 6d.

Bible History; or, Scripture its own Interpreter; by Mrs. Sherwood. 2s. 6d. half-bound roan.

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A New School Atlas of Modern Geography; by L. C. Russell. 8vo. 12s.

A Practical Guide to the Composition and Application of the English Language; by Peter Smith, A.M. Post 8vo. 10s. 6d. boards.

Exercises for writing Greek Verse. 7s.

A Key to the above. 3s.

Elements of Experimental Chemistry; by Wm. Henry, M.D. 2 vol. 8vo. £1 14s.

A Philological Grammar of the English Language, in a Series of Lessons, containing observations on Language, on more than one hundred Treatises of English Grammar,

Grammar, and on popular modes of Teaching. Demy 8vo. 6s. boards.

Exercises on the Globes and Maps, interspersed with Historical and other Information, with Questions for Examination; by the late William Butler; and an Appendix, by which the Stars may be known, by Thomas Brown, Teacher of Writing. 12mo. 6s. boards.

FINE ARTS.

Pilkington's Dictionary of Painters, revised and corrected. 2 vols. 8vo. £1 4s.

GENERAL LITERATURE.

Rational Recreations. 2s. 6d. in extra boards, with near 40 Engravings.

View of the Literature of the South of Europe; by M. De Sismondi, translated with Notes, by Thomas Roscoe, Esq. 4 large vols. 8vo. £2 16.

Heton's Pilgrimage of Jerusalem, from the German of F. Stranss, with Notes and Illustrations. 2 vols. 8vo. 16s. boards.

Vol. 1, 2, 3, and 4, of Voltaire's Philosophical Dictionary, to be comprized in Six Volumes, foolscap 8vo. £1 12s. boards.

Translations and Imitations; by the Author of Ireland, a Satire. Foolscap 8vo. 7s. boards.

The Poetical Note Book and Epigrammatic Museum; by George Wentworth. 1 vol. royal 18mo. 7s. boards.

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PROCEEDINGS OF PUBLIC SOCIETIES.

SOCIETY *for the* ENCOURAGEMENT *of* INDUSTRY.

A NEW society, for the encouragement of industry and the reduction of poors' rates, has been recently established through the exertions of a few philanthropic individuals, who have published an address to the public, of which the following forms the preamble:—"This association, instituted for the conservation of British society, by protecting the industrious labourers, considers that the time of appealing to the country and the legislature is fully arrived; and that the call hereby made for the adoption of those measures, which have been the result of the most patient and zealous investigation, will be received with candid attention by the generality of our countrymen. The miserable condition of the labourers, and the low wages, in some cases not exceeding three shillings per week, to which they are brought, is well known. Ill-fed, ill-clothed, their children bereft of nourishment, and exposed to cold and

and nakedness; their rural habitations perhaps destroyed, and driven to a neighbouring town for shelter; the English labourers, without the means of improving their condition in our free country, are seen devoted to ruin;" or we might add,

"Or doom'd
To seek a home in some more kindred soil."

The address proceeds with an appeal to the sympathy of a humane public in support of the objects of the association, and it is accompanied by a table "shewing by calculation the consequences necessarily produced upon the manufacturing, commercial, and landed interests, by the inability of labourers to consume."

The society above-mentioned have it in contemplation, in furtherance of their object, to present a bill to the legislature in the ensuing session—"For affording relief and employment to distressed labourers," an outline of which is appended to their address to the public. It is, in substance, the same plan which has been often before suggested—that of *creating* employment by the parishes allotting a portion of waste-land to every cottager; and, of course, recommending "the spade method of cultivation." There appears, however, so many obstacles to the adoption, generally, of the plan proposed, that it hardly seems probable such a bill would pass both houses of the legislature, however benevolent and pure may he the motives from which the plan has originated.

SANSKRIT COLLEGE *of* CALCUTTA.

The first stone of the new Sanskrit College was laid on the 25th February. The following are the rules of the institution:

1st. Students will be admitted from the age of twelve to eighteen years, and after having passed an examination in grammar, they will be allowed to study other sciences.

2d. After having passed an examination in grammar after three years' study, if the student desire to study other sciences he will be allowed to do so, but should he not pass the examination in grammar, he will be expelled from the college.

3d. A yearly examination will take place of all the students educated in the college.

4th. Every student admitted into the college on the Company's foundation, will be entitled to receive for twelve years from the day of his admission, a monthly allowance of five rupees.

5th. Such students on the foundation as pass the examination with credit will, besides their allowance, be entitled to a reward for their diligence, and those who do not receive the allowance will be rewarded according to their merit.

6th. Any student who shall have studied grammar for three years, and have passed the examination, and shall be desirous of studying other sciences, shall receive a certificate from his tutor, and from the secretary of the college, confirming these circumstances.

7th. Any student who shall not attend at the appointed hours for study, or who shall behave disrespectfully to his tutor, shall be expelled from the college forthwith.

8th. The pundit having determined in what science any student is the most likely to excel, shall instruct him in that science, and the pupil must abide the decision of the pundit as to that science.

9th. Any communications which the students may wish to make to the managers of the college, must be made through the pundits.

10th. After having studied for twelve years, and left the college, a certificate of his qualifications in the sciences he has studied will be given him by the pundits in the Sanskrit language, and one in the English by the secretary of the college.

11th. Each student is to be instructed solely by the pundit of his own class, and will not on any account study under any other.

12th. All the officers of the college shall act under the direction of the secretary.

13th. The students will study grammar for three years, after which, for two years, they will study oratory and other sciences, and for one year astronomy, and on the seventh year they may learn whatever science they please, and be placed under the pundit, whose duty it shall be to teach that science.

NEW MUSIC AND THE DRAMA.

THE *Freyschütz* is at present the fashion of the musical world, after having been successively rejected by the managers of either theatre. We are favoured with it in all forms, divertimentos and arrangements for instrumental performers, and solos, duettos, &c., for vocalists; and have not only the music of M. Weber hashed up into a variety of dishes, but several original compositions appended to the opera of *Freychütz* by English composers. One of the most pleasing of these is the ballad,

"*Love!*

"Love! good night," composed by Mr. Hawes, Harmonic Institution.

This melody is one of those sweet pathetic movements which dwell on the memory long after the impression has ceased on the ear. It is at once a scientific trifle, and a contrast and relief to the grander harmonies which so much prevail in this favourite opera. Mr. Hawes has added to his former reputation for pure taste by the composition of this elegant ballad.

"A Woodland Life," composed by J. Wade' Esq. Willis and Co.

The celebrated polacco, or hunting-song, sung by Mr. Braham in the *Freyschütz*, is also a very spirited composition. Mr. Wade appears to be an original and able composer, and fully capable of doing justice to an entire opera, provided he can procure a dramatic poet worthy of his music. We see no reason why native talent should not (if equally encouraged) equal exotic talent. But the manager of Covent-Garden theatre, it is said, has engaged Herr Von Weber to direct the musical department of that concern during the ensuing season, and a man of the name of Planché to write for him.

"The plain gold ring." The Music adapted from the subject of the Overture of the Freyschütz. T. Williams.

This is also an elegant little ballad, and the taste Mr. Williams has displayed in adapting the music to the words is highly creditable to his judgment. It can scarcely fail of becoming a favourite with the public.

An Impromptu for the Harp; in which are introduced the admired Melodies "The Moments were sad," and "John Anderson;" by N. C. Bochsa. Goulding and Co.

The introductory movement of this composition is highly spirited, and requires a very brilliant finger to do it justice. The two variations on "Oh, the moment," are sufficiently diversified, yet brilliant, and the connexion is also good. Whilst "John Anderson" is distinguished by that simplicity which characterizes the original air.

The young German musician Litz, who was in this country a few months back, is at present astonishing the good people of Paris with his performances. It is said that he is composing an entire opera to French words! The youth is doubtless in possession of very extraordinary talent for his age, but it is scarcely possible that he can have judgment sufficient for the task.

A Series of National and Popular Airs, with Variations, for the Violin: by James Sanderson. 3s.

These variations, which Mr. Sanderson has dedicated to his ingenious and tasteful friend Mr. Spagnoletti, form evident signs of his mastery on the instrument for which they are prepared; and if their practice be accompanied with the study of Mr. S.'s work on the art of managing the bow and finger-board, they will not fail to advance the execution of the unfinished performer. While, as arguing a lack of invention, we are sorry to see such an abundance of what may be called *second-hand* productions, it affords us some gratification to witness the numerous demonstrations of skill that come before us, in several shapes, of rondos, variations, and other arrangements of old, and sometimes worn-out melodies. If English masters are not gifted with originality of idea, they at least manifest a praise-worthy assiduity, and no small portion of that ingenious art which, in literature, is so appropriately styled *book-making*.

"Oh, my Love's like the Red Rose," a Popular Air, with Variations for the Piano-Forte and Flute. Composed by S. F. Rimbault. 2s.

Mr. Rimbault, in his variations applied to this air, has given a pleasing loose to his fancy, without covering or deforming the character of his original. In every bar the notes of the melody constitute the pivot on which the passage turns; and the ear is gratified by a playful freedom of idea, that, mingling with the matter it takes for its basis, produces an effect compounded of the recollection of the theme, and the impression made by the superstructive finishing of Mr. R.'s tasteful imagination.

The Favourite French Air, "In my Cottage near a Wood;" arranged with New Variations for the Piano-Forte, by William Sheppard. 2s.

The variations subjoined to this pretty little French melody are, in their simplicity, perfectly analogous to the materials on which they are founded. In their execution they are progressive, and even in their most difficult passages the accommodation of the juvenile hand has been so far consulted, that performers who are anxious for proficiency of finger, may derive much advantage from their practice.

ENGLISH OPERA-HOUSE.

The Frozen Lake.—The name of this piece is the best thing about it; it is also the only original point it has to boast of, for the whole is an importation (*La Niege*) from a Minor French Theatre, brought over by that determined smuggler of Parisian nonsense, M. Planché, though a little the worse for the wear. This pertinacious gentleman is as troublesome to playgoers as the ghost in Hamlet; a perfect "*hic et ubique.*" We visit Covent-Garden, and there we have him as Robin Hood, or flourishing with Indian tomahawk and feathers, and riding triumphantly over the head of Shakespear by the assistance of Ducrow and company. We shift our ground to the Adelphi, and there we find him figuring away in Adelphic tragedy. Again we run over to the English Opera-House, and he pops out upon us as a Vampire: there is no getting rid of him; he sticks to us like a leach, and sucks out the very life-blood of our patience. Really, Messieurs Managers, gentlemen of the golden monopoly, this is too much; soup for breakfast, soup for dinner, soup for supper, nothing but soup, and that too of the very worst kind; a thin washy sort of composition, as flat as the flattest drainings of the new-invented intermediate. The public have a right to expect other things from a manager like Mr. Arnold, who is capable of producing for himself better pieces than any that are written for him; we could forgive him for patronizing *Frozen Lakes*, if he would but set to work himself and write another *Up all Night*, or *Frederick the Great;* there is no living author, with whom the stage is acquainted, so fitted by talents and experience to produce a good opera as himself, and one such from his pen would be sufficient compensation for a score of bad pieces from the hands of others.

As to this *Frozen Lake*, it is, as might be expected from its name, a very cold piece of business, but this we suppose tells in its favour in a summer theatre; it does not agitate the nerves, or create any extraordinary emotions, which, considering the great heat of the weather, would be not a little disagreeable. The interest of the drama, or rather the drama itself, for it has no interest, turns upon the private marriage of the daughter of the Grand Duke of Swabia with a *protegé* of her father. To conceal the husband's secret visits, he is drawn in a sledge across the Frozen Lake, and in the end the Duke, like a dutiful father, relents, and forgives the lovers, according to the established custom on all such occasions—that is on the stage—in real life things are managed somewhat otherwise. Certainly we should like to see a drama with a new catastrophe, nor can we conceive why death or marriage should be so universal a conclusion. At present, one or the other is certain to the heroes and heroines of the stage: there is no escape for them; so that the spectator always seems as if he only came in at the fag end of their life, just as they are going either to die or to marry; and of the two events there is no difficulty in guessing which will take place, when once the play-bill has told us whether comedy or tragedy is behind the curtain. And yet why should marriage be considered so facetious an affair? Many people find it no joke; but these are high and secret matters, which we leave to be settled by the initiated.

On the same night when the *Frozen Lake* made its appearance, a new farce was presented, under the name of *Jonathan in England*, from the pen of Mr. Peake. The object of it is to exhibit Mathews in the caricature of an American, and as a caricature it is well enough, full of equivoque and puns, some good and some bad, and perhaps the better for being bad; at least, so say the punsters, who must be the best judges of their own art, and we are not inclined to dispute the point with them.

It has happened, however, to Mr. Peake, as it happens to the author of Waverley, the hero of the piece is quite lost in the superiority of others, and, "*absit invidia dicto,*" we think the chaste humour of Mr. Bartley a much more prominent feature than all the mimicry—excellent as it undoubtedly is—of our favourite Mathews.

METEO-

METEOROLOGICAL REPORT.

Journal of the Weather and Natural History, kept at Hartfield, East Grinstead, by DR. T. FORSTER, *for August* 1824.

Days.	*Thermometer.*	*Barometer.*	*Wind.*	*State of the Weather.*
1.	67	29.61	E.S.E.	Showers.
2.	68	29.95	N.—S.W.	Fair day.
3.	66	29.90	S.W.	Fair.
4.	68	29.80	N.—S.W.	Fair.—Showers.
5.	—	—	S.W.	Showers.
6.	—	—	W.	Showers and fair.
7.	66	29.86	N.	Sun and clouds.
8.	63	29.83	S.W.	Some small rain.
9.	71	29.65	W.	Fair.
10.	62	29.78	S.W.	Fair.—Rain.
11.	67	29.67	S.W.	Small rain.—Fair.
12.	69	29.75	S.W.	Clear and Showers.
13.	66	29.80	S W.	Misty.—Showers.
14.	66	29.92	W.	Fair.
15.	61	29.51	S.W.	Rainy day.
16.	65	29.78	W.	Showers.
17.	63	29.70	S.W.	Small rain.
18.	—	—	S.W.	Storms and showers.
19.	—	29.76	S.W.	Showers.
20.	64	29.80	S.W.	Fair.—Rain.—Fair.
21.	57	29.80	S W.	Rain.—Clear.
22.	61	29.95	W.	Damp and rainy.
23.	55	30.05	N.E.	Clouds.—Clear.
24.	—	—	N.E.	Fair.
25.	—	—	Calm.	Fair.
26.	68	30.20	N.E.	Clouds.—Clear.
27.	69	30.05	N.E.	Fair.—Clear.
28.	69	29.86	N.E.—E.	Sun and mist.
29.	76	29.86	S.E.	Fine hot day.
30.	74	29.84	S E.	Mist.—Fair.
31.	77	29.84	S.E.	Mist.—Fair.

*** *The thermometer is taken at* 2 P.M., *unless otherwise stated.*

OBSERVATIONS.

Aug. 2.—A white rime-like frost on the grass.

—6.—The occultation of the planet Uranus by the moon not seen, on account of the passing clouds.

—7.—Spreading strakes at night by moonlight. Small meteor.

—9.—Meteor seen.

—10.—Breezes varying in direction, as I ascertained by two kites tied one to the other, and flown with one continuous string. Much sonder cloud.

—11.—Much of the sonder cloud. Lunar halo.

—13.—Wind varying, as ascertained by kites.

—14.—Small meteors shoot towards the S.W. The nights begin to be cooler.

—17.—The air prodigiously damp.

Aug. 22.—Very damp.

—23.—The Pleiades shone very bright: change of weather. Wind from N.E. and cooler.

—27.—Varying breezes.

—30.—Oppressive close day. Distant thunder.

—31.—Very hot: damp night, with strakes in the valley.

This is a very bad season for all kinds of fruit. Apples are particularly scarce; and wall-fruit wherever there is any, is very bad.

It is remarkable that there are no wasps this season. The author, who is now writing, Sept. 20, has not yet seen above one single wasp; though in most former years they abound during autumn in this neighbourhood.

Ants, and limaceous reptiles are very abundant.

MONTHLY AGRICULTURAL REPORT.

ON the publication of this Report, we presume harvest will have been finished throughout the country, even to the remotest north, and under far happier auspices than could have been safely augured at an earlier period of the season. As to the produce generally, we have little to add to our last accounts, any other wise than that they vary, in a considerable degree, as derived from different districts; which must indeed necessarily be the case, from varying local circumstances of condition in the land, culture, and peculiar atmospheric temperature. In general, as before stated, the wheat crop is judged to be a full average: on the other hand, our letters from certain of the most productive wheat districts, describe that important crop not only as below an average, but even a quarter per acre below the produce of last year—the quality, however, being represented as fine. It is thence averred (a decisive proof, no doubt, if correct), that the ears of wheat of the present season are not of that larger size which is the general indications of great produce; nor do they contain that great number of kernels, which are found in superabundant seasons. Much wheat was also laid, and considerably damaged by the storms and heavy rains; and there is no doubt but the crop has suffered, in some degree, by the constant atmospheric changes of the whole season; for we find "black wheat" already quoted in the market accounts. It is universally remarked, that those farmers who have suffered their wheat crops to stand until ripe have been most successful this year; a fact worthy of remembrance, since we have formerly known many advocates for cutting wheat *green*, and have seen much deterioration in the sample from that practice. Considerable damage has also been experienced from the bulk of clover on the barleys, which it is surely more rational and safe to make a single crop. Barley, a full average on some lands; on others, is no doubt short of that quantity, and somewhat damaged by the late rains. Beans and pease, a vast crop, except of haulm, which is short. Some say that the wheat-straw, not being bulky, will detract from the barn labour, and occasion great distress in the winter season to the labourers, who are still far too numerous for the demand of agriculture. As to the real state and produce of the crops, another month will produce sufficiently accurate information, at that grand school of universal relative intelligence, the London Corn Exchange. At any rate, oats excepted, we need apprehend no want of corn; and our numerous and anxious proposers of additional legislative checks and improvements on the importation of foreign bread corn may perhaps now safely rest on their oars, since such an event may possibly be at considerable distance. It ought not to be forgotten, that although the culture of new lands must necessarily be gradual, the breadths reclaimed, in a course of years, have been extensive. The profitable sales of all kinds of cattle and sheep still continues, however near we advance to the autumnal quarter. Variations, in course, are quoted; but the general prices are great. Cart colts of a good size are at a vast price; and the ensuing spring will perhaps see horses as dear as they have ever been known. The quantity and quality of hops will be satisfactory, the season considered, and their culture is extending in the west. Grasses, green crops, turnips, and potatoes are in an abundance, that is only periodical, and seldom experienced: the latter, it is said, will exceed consumption. The leather market is overstocked. In fact, production has long since set its jolly face against the Malthusian doctrine. Plums and the later apples prove of superior quality to the earlier fruits. The rains have been beneficial to part of the fallows and the clover leys. Game is said to be scarce; and we regret to have received intelligence from various quarters, that such is the hatred, disgust, and irritation against the game-laws among the great body of labourers and others, that they take every opportunity of destroying the eggs of patridges and pheasants, and of knocking the leverets on the head. If not the injustice, surely the peril and folly of these proofs of antiquated legislative wisdom will anon become apparent. Our regret, also, is deep, and not unmixed with another sensation, to find that the distresses of the Essex farmers, from a late unavoidable and ruinous calamity, have not hitherto excited the sensibility and the protection of their brethren, and of the general agricultural interests.

Smithfield:—Beef, 3*s.* 0*d.* to 4*s.* 2*d.*—Mutton, 4*s.* 0*d.* to 4*s.* 4*d.*—Lamb, 4*s.* 0*d.* to 5*s.* 4*d.*—Veal, 4*s.* 6*d.* to 5*s.* 9*d.*—Pork, 4*s.* 0*d.* to 5*s.* 0*d.*—Dairy do. 5*s.* 0*d.* to 8*s.* 0*d.*—Bacon, 0*s.* 0*d.*—Raw fat, 2*s.* 1*d.*

Corn Exchange:—Wheat, 42*s.* to 68*s.*—Barley, 27*s.* to 37*s.*—Oats, 17*s.* to 30*s.*—Bread, (London), 9½*d* the loaf of 4lb.—Hay, 60*s.* 6*d.* to 115*s.*—Clover do. 80*s.* to 130*s.*—Straw 45*s.* to 63*s.*

Coals in the Pool, 29*s.* 0*d.* to 39*s.* 9*d.*

Middlesex, 21st Sept.

MEDICAL

MEDICAL REPORT.

REPORT *of* DISEASES *and* CASUALTIES *occurring in the public or private Practice of the Physician who has the care of the Western District of the City Dispensary.*

SURPRISE has often been expressed, that persons who are in the practice of minutely investigating the mechanism of the human frame, should not be in constant apprehension of deranging, by every motion of their limbs, some part of the nice and complicated structure of which their bodies are composed. It may be considered as at least equally surprising, that observers, who are in the constant custom of witnessing the disorganizing effects of spirituous potation, should not connect a sort of suicidical consciousness with the contemplation of having recourse, either habitually or occasionally, to any thing in the way of excitation beyond the absolutely requisite sustenances of life. Such prudery of restraint would, however, by no means be desirable: it comes within the compass both of physical and moral propriety now and then to urge on the languid powers, and to enjoy the hilarity of a social glass. But it is really striking (and it ought to be practically impressive), to observe under what different circumstances the closing years of life are encountered by one, who has been in the daily habit of yielding to self-indulging dictates;—from another, who has resolutely said nay to the allurements of alcohol, under the feeling that it is not in the power of wine or spirits to effect more than a temporary good, and that not with impunity. In the one case, —and the writer has recently had opportunities of witnessing the contrast now recorded,—in the one case, the individual encompassed about with the integrity of unimpaired organization (" *meâ virtute me involvo* "), submits only to death, when its powers are backed by time and circumstances, and then gives himself up a willing victim to the ordinances of nature; while, in the other, death seizes upon the organs before he can conquer the man—takes possession of the streets and lanes, while the citadel still holds out—and a struggle ensues, of frightful severity, but of certain issue.

It must be admitted, that organic diseases sometimes destroy life, the occurrence of which has been spontaneous and specific, or without especial reference to exterior cause; but, in a considerable number of instances, to say the least, these injuries to parts, however slowly and insidiously produced, are of self-infliction and might be obviated by self-controul. But of this, more at another time.

The preceding month, besides its usual share of stomach and bowel complaints, has been remarkable for the frequent occurrence of excruciating pains among the muscles of the extremities, which, while they are more allied in their circumstances and character to rheumatism than to any other complaint, have still been somewhat different. The violence of the pain has indeed been directed rather to the muscular fibres than to the joints, and any, even the smallest attempt at motion, not of the joint but of the limb, has been met by the most agonizing feelings. The reporter's practice, for the most part, has been to loosen these strong holds of paralyzing pain by the administration of elaterium; this most powerful and useful medicine serves the double purpose of exciting nausea, with which much pain is almost incompatible, and of carrying off from the bowels any offending material, with which the disorder from the first might have had to do in the way of syrupathetic connection. But elateriuno is a medecine which requires much care in its adjustment to circumstances, and much caution in the regulation of its dose. It has, like many other things, as well in the *materia medica* as in the *materia mundi*, its evil attached to its good; and unless its good be employed with restrictive prudence, its evil will soon be manifested.

Affections of the head have likewise been frequent during the few past weeks; they have for the most part been marked rather by muscular action of considerable violence, than by positive inflammation. The heart has in some instances visibly partaken of the commotion, and it has been necessary to bridle in the circulating energies with a powerful hand in order to prevent resulting injury. When you have this ruffle and rampancy of vessel with low nervous energy, contra-indications are presented to the practitioner, which demand an occasional pause in the pursuit of one particular principle; and system apart, it is of importance to recollect that high action will not always be controlled by, nay that it does not invariably demand, depletory measures.

D. UWINS, M.D.

Bedford-row, Sept. 20th 1824.

ALPHABETICAL

ALPHABETICAL LIST OF BANKRUPTCIES, *announced between the 20th of August and the 20th of September* 1824; *extracted from the London Gazettes.*

BANKRUPTCIES. [This Month 58.]

Solicitors' Names are in Parentheses.

ANDERSON, A. Lloyd's Coffee-house, master-mariner. (Cranch
Barlow, R. Claremont place, New-road, bill-broker, (Score, L.
Bartlett, A. and R. Bristol, ship-builders. (Clarke and Co. L.
Carter, J. Downing-st. victualler. (Goren and Co.
Cato, W., W. Little, and W. Irving, Newcastle-upon-Tyne, drapers. (Dunn, L.
Duncombe, J. jun. Little Queen-st., bookseller. (Whitehouse
Ellison, J. Keighley, Yorkshire, cotton-spinner. (Hurd and Co. L.
Foster, J. Abchurch-lane, merchant. (May and Co.
Grist, J. Midhurst, Sussex, bricklayer. (Wardroper and Son
Harvey, H. S. Oxford-st., hosier. (Wrentmore and Co.
Hatfield, W. and J. Morton, Sheffield, cutlers. (Blakelock, L.
Hazard, D. Hackney, merchant. (Tottie and Co. L.
Helm, G. Worcester, linen-draper. (Cardabe and Co. L.
Hewett, J. Mitcherm, butcher. (Newcomb, L.
Hirst, G. Manchester, clothier. (Corte, L.
Hopkins, G. and J., St. Philip and Jacob, Gloucestershire, timber-merchants. (Poole and Co. L.
Humble, S. Newcastle-upon-Tyne, stationer. (Fryer
Hyde, N. Nassau-st. Soho, jeweller. (Cockayne and Co.
Ilsley, J. Wyfold, Court-farm, Henley-upon-Thames, farmer. (Eyre and Co. L.
Jackson, E. Uley, Gloucestershire, clothier. (Fisher, L.
Jackson, J. Gerrard-street, Soho, picture-dealer. (Piners and Co.
Johnson, R. Burslem, earthenware manufacturer. (Barber, L.
Jarvis, W. G. Penton place, Newington Butts, coal-merchant. (Grace and Co.
Jones, R Westbury Leigh, Wilts, clothier. (Williams, L.
Jones, W. Ratcliff Highway, grocer. (Cook and Co. L.
Lees, J. Matbank, Lancashire, cotton spinner. (Hurd and Co. L.
Lewis, T. C. and C. Bevan, High Holborn, linen-drapers. (Sweet and Co.
Liddard, W. Charlotte-row, Bermondsey, coal-merchant. (Scott and Son, L.
Lond, T. Dover, corn-dealer. (Abbott and Co.
McCormick, J. Jubilee-place, Commercial-road, victualler. (Benton, L.
Manley, D. Southampton-row, Russel-square, wine-merchant. (Stratton and Co.
Mardall, W. Water-lane, Tower-street, brandy-merchant. (Paterson and Co.
Marsh, W. and Co., Berner's-street, bankers, (Gordon
Mayell, W. Exeter, jeweller. (Darke and Co. L.
Morris, J. jun., Stingo-lane, St. Mary-le-bonne, stage-master. (Coleman.
Nicholls, R. Ruthen, Denbighshire, druggist. (Jones, L.
Parker, W. Oxford-street, ironmonger. (Allen and Co.
Peck, J. Andover, linen-draper. (Rigge and Co. L.
Peel, J. Rochdale, shoe-dealer. (Baker, L.
Perks, J. Monkton Combe, Somersetshire, brewer. (Bridges and Co. L.
Pennan, A. Batson-street, Limehouse, master-mariner. (Glynes
Poor, J. Wapping, Bristol, victualler. (Thomas
Richardson, J. Manchester, cooper. (Adlington and Co. L.
Rickards, J. Dursley, Gloucestershire, cloth-manufacturer. (Hurd and Co.
Roughton, L. Noble-street, Foster-lane, wholesale druggist. (Vandercom and Co.
Sawyer, J. Lincoln's-Inn-Fields, wine merchant. (Steel and Co.
Scrivener, H., H. Scrivener, jun. and J. Wilson, Kentish-buildings, Southwark, hop-factors, (Ware and Co.
Simmons, A. Strand, tailor. (Knight and Co.
Smith, J. R. North Audley-street, upholsterer. (Brookes
Smith, T. Derby, nail-manufacturer. (Wragg, L.
Stott, S. and J., Road-lane, Spotland, Lancashire, woollen manufacturers. (Clayton, L.
Tappenden, T. Cumberland-street, Middlesex-hospital, victualler. (Whitton
Walthew, J. Liverpool, linen-draper. (Blackstock and Co. L.
Want, G. S. Skinner-street, cabinet-maker. (Rowlands
Wilkins, S. Holborn-hill, stationer. (Waller
Wooding, M. Ducket-street, Stepney, baker. (Argill
Woollett, J. Queen's-Head Inn, Southwark, tavern-keeper. (Young and Co.
Wren, J. Great Titchfield-street, Portland-place, carpenter. (Saunders and Co.

DIVIDENDS.

Ablett, J. Bucklersbury
Alfrey, W. Cloak-lane, Dowgate-hill
Appleton, R. J. Sculcoates, Yorkshire
Beer, W. Plymouth Dock
Bishop, J. Warwick
Blunt, E. Cornhill
Brooks, C. Southampton
Brown W. and A. Walter, Bristol
Byers, — Blackburn
Carden, W. Bristol
Carter, S. Stratford
Chartres, G. Seymour-st. Euston-square
Cooper, H. Commercial-place, City-road
Deavill, E. Manchester
Driver, J. and M. Bristol
Dixon, J. Ivy-bridge, Devonshire
Dodd, W. Liverpool
Dudley, C. S. Gracechurch-street
Field, T. and J. Du Vivier, Hull
Ford, W. Black-Prince-row
Forshaw, J. Liverpool
Fox, E. St. George, Gloucestershire
Green, R. Selby, Yorkshire
Greenway, J. Plymouth-dock
Hammond, C. Durham
Haughton, J. Liverpool
Hewitt, T. Carlisle
Hill, R. Stafford
Hill, T. West Smithfield
Horne, W. and J. Stackhouse, Liverpool
Humble, M. Liverpool
Jones, J. Brecon
Kerbey, O. T. Finch-lane
Longworth, J. Liverpool
Maddy, W. Leeds
Messenger, C. Oxford
Metcalfe, J. Thirsk, Yorkshire
Metcalfe, J. and J. Jeyes, Upper East-Smithfield
Moline, S. Billiter-lane
Nunneley, S. Crainsley
Pearl, R. Cambridge
Pelham, J. sen. Chart, Kent
Prichard, R. Regent Circus, Oxford-street
Randall, R. Truro
Reed, T. and J. Middlemas, Newcastle-upon Tyne
Richards, J. Exeter
Sanderson, W. W. Nicholas-lane, Lombard-street
Shannon, W. Whitehaven
Smith, F. B. and Co. Old Trinity House
Smith, J. Rugby, Warwickshire
Smith, J. Bristol
Spear, J. Sheffield
Tennent, J. Liverpool
Thick, C. Shaftesbury
Tozer, J. Bristol
West, A. Ramsay, Huntingdonshire
Willis, J. sen. Otley, Yorkshie
Woodward, R. Liverpool

MONTHLY PRICE-CURRENT.

ALMONDS:—Sweet.. per cwt. 95*s.* to 100*s.*
Bitter ..... 75*s.* to 76*s.*
ALUM ..... per ton 13*l.* to 15*l.*
ASHES:—Quebec Pot ..... per cwt. 34*s.*
United States ..... 29*s.* to 30*s.*
Quebec Pearl..... 33*s.* to 40*s.*
BARILLA:—Teneriffe .... 19*s.* 6*d.* to 20*s.*
Carthagena..... 21*s.* to 23*s.*
Alicant..... 21*s.* to 21*s.* 6*d.*
Sicily ..... 18*s.* 6*d.* to 19*s.* 6*d.*
BRIMSTONE:—
Rough ..... per ton 6*l.* 10*s.* to 6*l.* 15*s.*
COCOA:—
West-Indian .... per cwt 2*l.* 10*s.* to 4*l.*
Trinidad ..... 4*l.* to 4*l.* 5*s.*
Grenada ..... 3*l.* to 5*l.*
Caraccas..... (none.)
COFFEE:—Jamaica Triage .... 40*s.* to 50*s.*
Jamaica, good..... 62*s.* to 64*s.*
———, fine ..... 66*s.* to 76*s.*
———, very fine..... 96*s.* to 100*s.*
Dominica..... 50*s.* to 97*s.*
Berbice..... 42*s.* to 81*s.*
COTTON:—
West-India, common, per lb. 8*d.* to 10*d.*
Grenada..... 9*d.* to 10½*d.*
Berbice ..... 10*d.* to 11*d.*
Demerara ..... 10*d.* to 11¼*d.*
Sea Island..... 1*s.* to 1*s.* 3*d.*
New Orleans..... 8*d.* to 10¼*d.*
Georgia Bowed ..... 7*d.* to 8½*d.*
Bahia..... 10*d.* to 11½*d.*
Maranham..... 10*d.* to 11*d.*
Para ..... 9*d.* to 10*d.*
Mina ..... 8*d.* to 10½*d.*
Pernambucco ..... 11*d.* to 1*s.*
Surat..... 5¼*d.* to 7*d.*
Madras..... 5⅛*d.* to 7*d.*
Bengal..... 5½*d.* to 8*d.*
Bourbon ..... 9*d.* to 1*s.*
Smyrna ..... 7⅛*d.* to 8½*d.*
Egyptian ..... 10*d.* to 11*d.*
CURRANTS..... per cwt. 97*s.* to 102*s.*
FIGS, Turkey ..... 70*s.* to 75*s.*
FLAX, Riga..... per ton 52*l.* to 53*l.*
Druana ..... 48*l.* to 48*l.* 10*s.*
Petersburgh..... 45*l.*
HEMP:—Riga..... 41*l.*
Petersburgh..... 36*l.* to 36*l.* 10*s.*
———, half clean... 33*l.* to 33*l.* 10*s.*
IRON—Petersburgh ..... 24*l.*
British Bar ..... 10*l.* to 10*l.* 10*s.*
INDIGO:—
Caracca Floras.. per lb. 12*s.* to 14*s.* 6*d.*
——— Sobra.... . 10*s.* 6*d.* to 11*s.* 6*d.*
East-India..... 10*s.* to 13*s.* 6*d.*
OIL:—Palm ..... per cwt. 26*s.*
Whale Cape, in bond, per ton. 18*l.* to 19*l.*
Galipoli ..... 48*l.*
Lucca..... per jar 8*l.* to 9*l.*
Florence..... half-chest 28*s.*
PIMENTO (in Bond) .... per lb. 7½*d.* to 8*d.*
PEPPER, do..... 5*d.* to 6¼*d.*
RICE:—East-India.. per cwt. 13*s.* to 15*s.*
Carolina ..... 31*s.* to 33*s.*
———, old ..... 23*s.* to 30*s.*
SPIRITS (in Bond):—
Brandy, Cogniac, p' gall. 2*s.* 7*d.* to 3*s.* 3*d.*
———, Bourdeaux.. 1*s.* 10*d.* to 1*s.* 11*d.*
Geneva..... 1*s.* 4*d.* to 1*s.* 9*d.*
Rum, Jamaica..... 1*s.* 7*d.* to 2*s.* 9*d.*
——, Leward Island.. 1*s.* 3½*d.* to 1*s.* 6*d.*
SUGARS:—Jamaica .. per cwt. 53*s.* to 74*s.*
Demerara, &c..... 53*s.* to 68*s.*
St. Kitts, Antigua, &c. .... 53*s.* to 66*s.*
Refined, *on board for exportation*:
Large Lumps.... per cwt. 33*s.* to 34*s.*
Good and middling ..... 38*s.* to 41*s.*
Patent fine Loaves..... 40*s.* to 55*s.*
TALLOW, Russia ..... per cwt. 35*s.* 6*d.*
TAR, Archangel ..... per barrel 15*s.* 6*d.*
Stockholm..... 15*s.* 3*d.*
TEA, (*E.-India Company's prices*):
Bohea ..... per lb. 2*s.* 4*d.* to 2*s.* 5*d.*
Congo ..... 2*s.* 7*d.* to 3*s.* 3*d.*
Souchong..... 3*s.* 10½*d.* to 5*s.*
Campoi ..... 2*s.* 7*d.* to 3*s.*
Twankay..... 2*s.* 3½*d.* to 3*s.* 6½*d.*
Hyson..... 3*s.* 2½*d.* to 5*s.* 10½*d.*
Gunpowder ..... 5*s.* 7*d.* to 6*s.*
TOBACCO (in Bond):—
Maryland, fine yellow, .. per lb. 1*s.* 8*d.*
Fine colour ..... 11*d.* to 1*s.*
Light Brown..... 5*d.* to 6*d.*
Virginia ..... 3½*d.* to 7*d.*
WINE (in Bond):—
Old Port ..... per pipe 24*l.* to 50*l.*
New do..... 23*l.* to 40*l.*
Lisbon ..... 32*l.* to 33*l.*
Madeira ..... 24*l.* to 90*l.*
Calcavello ..... 33*l.* to 38*l.*
Bucellas ..... 36*l.* to 42*l.*
Sherry..... per butt 24*l.* to 70*l.*
Teneriffe ..... per pipe 26*l.* to 50*l.*
Claret..... per hogshead 10*l.* to 50*l.*
Spanish, Red .... per pipe 10*l.* to 30*l.*

MONTHLY COMMERCIAL REPORT.

COTTON.—The sale of cotton-wool has been very inconsiderable, owing to the expected sale by the East-India Company of 15,700 bales, *viz.* 2,439 Bengal's, *Company's*, 4,489 do. *Privilege*, 271 Madras, 11,620 Surats, and 186 Bourbons. At Liverpool the market has been rather brisk, particularly in Bowed's, the total Sale amounting to 9,970 bags, which went off at our present quotations.

Sugar.—The market has revived considerably, and large purchases to some extent have been reported. At Liverpool the demand has been chiefly for boiling. In refined, the demand,

demand, both in London and Liverpool, has been for low lumps, and the finer sorts neglected. Molasses still at 25*s.* to 25*s.* 6*d.* per cwt.

Coffee very dull, and prices from 1*s.* to 2*s.* per lb. lower for ordinary descriptions, qualities from middling to fine retained their full prices, St. Domingo of middling quality sold at 61*s.* 6*d.* per cwt.

Rum, Brandy, and Hollands.—The accounts from France are very unfavourable respecting the vintage, the prices of brandy are therefore from 4*d.* to 6*d.* per gallon advanced. Rum dull at our quotations, and Hollands in no demand on the quay at even 10*d.* per gallon.

Spices are rather higher, from the small quantity in the Company's Warehouses; white pepper advanced 1*s.* per lb., owing to the loss of a vessel with a large quantity on board, and none in the warehouse.

Silk.—The silk trade continues very brisk; Bengals and Chinas at an advance of 1*s.* per lb. on the late India-house sale price, and the request extensive at the improvement.

Hemp, Flax and Tallow.—The tallow-market has been very heavy; yellow candle tallow of 1823, quoted at 34*s.* 3*d.* per cwt., and new 34*s.* 9*d.*; and for August and September shipments 34*s.* 9*d.* The last letters from St. Petersburgh state the prices at 100 roubles; exa. 9 5-8*d.* per rouble. Hemp is a shade lower. In flax, no alteration.

Stock in the West-India Warehouses:

	Stock.	Delivered		Stock.	Delivered.		Stock.	Delivered.
Sugar	43,889 hhds.	3,163	*Coffee*	13,570 casks.	880	*Rum*	28,175 punchs.	581
	3,223 trs.	353		20,331 bags	770		1,312 hhds.	15

East-India Company's Declarations:

On Wednesday 6th October 1824, prompt 21st January 1825. Licensed, &c. 1,850 chests indigo.

Course of Exchange, Aug. 24.—Amsterdam, 12 4.—Hamburgh, 37 4.—Paris, 25 55.—Leghorn, 47½—Lisbon, 51¼—Dublin 9¾ per cent.

Premiums on Shares and Canals, and Joint Stock Companies, at the Office of Wolfe *and* Edmonds.—Barnesley Canal, 300*l.*—Birmingham, 388*l.*—Derby, 160*l.*—Ellesmere and Chester, 90*l.*—Erewash, 000*l.*—Forth and Clyde, 500*l.*—Grand Junction, 345*l.*—Leeds and Liverpool, 610*l.*—Mersey and Irwell, 1200*l.*—Neath, 400*l.*—Nottingham, 300*l.*—Oxford, 900*l.*—Stafford and Worcester, 950.—Trent and Mersey, 2400*l.*—Alliance British and Foreign, 21*l.*—Guardian, 20*l.*—Hope, 6*l.*—Sun Fire, 220*l.*—Gas Light Chartered Company., 75*l.*—City Gas Light Company, 160.—Phoenix or South London, 18*l.*—Leeds, 210*l.*—Liverpool, 200*l.*

The 3 per Cent. Reduced, on the 24th, were 94½; 3 per Cent. Consols, 93¾; 4 per Cent. Consols, 101; New 3½ per Cent. 101; Bank Stock, 236½.

Gold in bars, 3*l.* 17*s.* 6*d.* per oz.—New doubloons, 3*l.* 15*s.*—Silver in bars, 5*s.* 0*d*½.

POLITICAL AFFAIRS IN SEPTEMBER.

GREAT BRITAIN.

THERE is nothing of that stirring nature abroad which with most readers constitute *news;* but there is enough, and more than enough, for serious contemplation to all those who take an interest in the welfare of the country. In spite of all declarations to the contrary, it does not appear that trade is generally improving, though partial instances are brought forward with great shew and noise, as if they could lead to any solid conclusion. If there be encrease any where, it is in internal commerce; for the great capitalists, not finding any foreign occupation for their money, are naturally led to embark in domestic speculations. In the mean time, Mr. Canning has let slip an opportunity of extending British trade in the only quarter which remained open to it: he has delayed so long in recognizing the independence of Colombia, that her delegate has left London, and gone over to Paris at the especial invitation of the French government: so that we may expect to forfeit, in a great measure, the advantages which a more generous and enlightened policy would have derived from an early trade with that country. The North Americans, not having the fear of the Holy Alliance before their eyes, have not been so remiss; but that was to be expected from a president, who holds his situation only by the good opinion of the people; one advantage at least in the republican form of government,—the chief magistrate may be deposed the moment he neglects his duty, without any impeachment to the morals or religion of his fellow-citizens.

Mr.

Mr. Canning's journey to Dublin at first excited much speculation. As it is the fashion of the day, or rather of the hour, to give him credit for all sorts of good intentions, it was supposed that his visit inferred some grand scheme for the amelioration of Ireland; but, on a sudden, he hears of the French king's death, which of course he had never dreamt of, on which he returns as speedily as he set out. We do not, however, belong to those who imagine that he has returned *re infecta*, and at all events can give a shrewd guess at what is to take place in the ensuing session of Parliament, though it would be difficult to say how that is connected with a visit to Dublin. We allude to the great probability there is of the Catholics being emancipated; and at the same time, as a sort of compensation to government, the forty shilling freeholders of Ireland being deprived of their elective franchise: the only matter of surprise is, that none of the journalists have had any foresight of such a measure.

But there is another and worse measure in contemplation, which we have from good authority. This is a scheme for the further restriction of the press; and some of the members of the Opposition have promised to lend their support to Government for the prosecution of it in the ensuing sessions. If this design should really be carried into effect, and it will assuredly be tried, there is an end of British liberty.

The East-India Company have taken the field against the Marquis of Hastings with a formidable folio volume of 800 pages. The sum and substance are,—that the house of Palmer and Co., bankers at Calcutta, were countenanced by the government of Lord Hastings in advancing large sums, by way of loan, to the court of Hyderabad; that the Company at home were not satisfied, either with the imperfect explanations received from the governor-general in council relative to these transactions, or with so much of the nature of them as could be understood from his despatches; that Sir William Rumbold, a ward, or some other intimate connexion of Lord Hastings, who had accompanied his Lordship to India, was a partner in the banking-house of Palmer and Co.; that by an act of parliament, no British subject can embark in pecuniary transactions with any native power, without incurring severe penalties; that in the opinion of the Court of Directors, a licence from the Bengal government to the banking-house, exonerating them from the risk of such penalties, was granted without an adequate necessity, and was abused by the bankers, in the terms of their contract with the Nizam, and in the exorbitant interest for which they stipulated, "to purposes injurious to the interests of our ally, and discreditable to the British character;" that Lord Hastings had in words, though not in substance, lent the credit of the Company to the pecuniary transactions with the Nizam. The defence of Lord Hastings, in his reply of 1823, is made to rest on the peculiarly dangerous circumstances of the moment, and the happy result of his measures to the interests of the Company.

FRANCE.

On the 16th of September, at four o'clock in the morning, died Louis* XVIII., in his seventieth year,—certainly not to be regretted as a king, whatever he may be as an individual. The usual quantity of court-like grief has been got up in the French papers, and, like the grief on all such occasions, proves only the impudence of those that govern, and the stupid servility of those that are governed. "Terrible catastrophe!"—"Wishes of a people!"—"Glory to our standard!"—"Ascension into heaven!" are the current phrases of the day, in ludicrous opposition to established facts, and the feelings, not only of France, but of Europe. The death of an old man of seventy, being in the common order of things, seems no such "terrible catastrophe." The "wishes of the nation" were shewn by driving this same Louis out of the country, and only receiving him again on the compulsion of English and Russian bayonets. The "glory of the French standard" consisted, not in fighting at the head of an army—that is a vulgar trick of usurpers, unfit for legitimacy—but in eating and drinking in the Thuilleries, while his troops assisted the wretched Ferdinand, in violation of his most sacred promises, in enslaving a gallant nation, whose only crime was a wish for their rights as men. Finally, the ascension into heaven has either no meaning, or is rank blasphemy;—we use the

* It is a curious fact, that all the kings of France, for a period of 214 years, that is, from the accession of Louis XIII., have borne the name of Louis, without interruption.

the word as we are taught to use it by the friends of all that is legitimate and orthodox.

It appears that Louis met his death with firmness, at least so say the French papers; and considering that he had drained the dregs of life, and had moreover a grand public part to play, it is by no means improbable. Of all the accounts given of his death, the following appears to be the most correct:—

It is true that the king, during his long agony, and the days which preceded it, observed extraordinary firmness, resignation, and greatness of soul. This is the more remarkable, as for several years past, being a victim to the most cruel sufferings, his temper has been soured, and he had frequent fits of impatience; and it might have been imagined that this disposition would have become more evident as the pains increased.

Except during the crisis and fainting fits, his head was perfectly clear; he spoke with mildness to those who were about him. A contradiction sometimes irritated him. He complained very much of the etiquette which the Gentlemen in Waiting did not forget to observe, even in those moments which were the most painful to him. As far as he was able, he put off the moment when the Priests were to be introduced into his apartment. At last he perceived that they were going to appear in spite of him. He immediately resigned himself, and listened to the Mass with much attention; but when it was ended, he said that M. de Croix, who performed, had not shewn sufficient unction. He suffered quietly the last sacraments to be administered to him. When they came to the prayers of the dying, he said, "You are in too great a hurry, I know myself better than the physicians do." He was in the right, for they were obliged to recommence the same prayers three times. The physicians thought that the last agony would be much more prompt, and every new crisis made them say that the fatal hour was come. However, on Tuesday morning, the king said, "I shall not die before Thursday."

The disorder was horrible, the legs were a mass of corruption. He had on his feet enormous excrescences like sponges. All the pains were in the belly and stomach. For above two months he had not been able to hold up his head, it fell on his breast. The upper part of his loins were nearly paralysed, the vertebral muscles were wholly relaxed, up to the moment when these new evils attacked him, his stomach had very well digested a great number of aliments, but that organ ceased its functions as soon as the upper part of the body doubled upon itself. M. Portal, his Majesty's first physician, said, according to his usual form of speech, "if the king could resolve to eat lying down, and to live lying down, he would still reign a long time." "How could you have me reign in bed."

Among his servants there was one named Usquenet, or Lasquenet, to whom he was much attached, and to whom he has reserved considerable advantages. No other person was dexterous in assisting him to change his position in his bed. The king said to the Count of Artois "I almost regret that you are so active; I would recommend Lasquenet to you."

The king had not wished to see the children of France, whatever the Journals may say; it was against his will that they were brought to him. After they were gone he said—"Why did you bring those children to me? If they were fifteen years of age, the sight of their old uncle dying would remain impressed on their memory; but at their age my sight will only make disagreeable impressions, without any advantage to them, for they will forget this last interview: it was not worth while to make the children cry."

Monsieur came frequently to the king's bedside. The day before his death, the king said to him—"Judgment will soon be passed on my reign; but whatever may be the opinion that shall prevail, I assure you, brother, that every thing I have done has been the result of long deliberation. I may have been mistaken, but I have not been the sport, the slave of events; every thing has been conducted and argued by me."

The Duchess of Angouleme never came into the king's chamber but in tears. "If you knew," said he, "what I have suffered for the last three years, you would not weep; you would rejoice."

Profound affliction prevailed in the Thuilleries. The servants, who had so often felt the effects of their master's impatience, sobbed aloud. The Chief Officers of the Palace, the Priests did not quit the bed of the dying monarch; in the night of the 15th Count d'Artois remained in an adjoining room, and they went several times to announce to him the death of his brother before it had taken place. At length, at three minutes past four in the morning of the 16th, M. Portal visited the patient, and declared that all was over:—"Go, and tell his Majesty," said the High Chamberlain, Prince Talleyrand. At this information the new king rushed into the chamber, where his predecessor had just breathed his last!

The witness who has related to us all these facts, said to us, I have seen many court tears—they would not deceive me, but those which Charles shed were sincere. He almost laid himself down on the bed of the deceased, exclaiming, "and I, too, am so old!" After this burst of sorrow, the Prince, composing himself a little, said to the Chamberlain, "What is to be done?" "Sire," replied Talleyrand, "I am here to attend to these things; you have need of repose—retire." "And you, too, want rest." —"Retire, retire! I conjure you, Sire!"

The

The king took the hand of his brother, kissed it, and withdrew.

The attendants had despaired of preserving the king's body from total dissolution. It is hoped, by certain chemical processes which will in the end change the colour, to preserve at least the masses.

Those who saw him the day before yesterday exposed to the view of the people, were surprised to find him so reduced; he was covered up to the breast only with a white cloth, which perfectly showed the contour of the body. As he died with his mouth open a bandeau was passed under the chin to keep it closed. The face was yellow, and the hands white as alabaster.

His majesty was born with a perfect organization of the upper part of his body: the developement of his head and chest indicated an herculean stature. The organization of his lower limbs had not the same perfection. They always presented rounded forms, soft consistency, and a little weakness. They did not hinder the King, in his youth, from taking the exercise of walking, hunting, and riding, but with age his limbs increased—they became weak and impotent, and the king was obliged successively to renounce all sorts of exercise, except in carriages. Such was the state of the king when he left Hartwell. These infirmities increased in the course of the last years, by the effect of the gout and erysipelas, to which his majesty was very subject; it was thenceforward easy to foresee that he could not triumph over all these causes of dissolution. However, the excellent organization of the upper parts long struggled with success against this bad constitution of the lower ones. Every thing that the state of the king required was counselled, and observed by him with confidence and exactness beyond bounds. Never, perhaps, were attentions carried farther, nor had a more evident influence on the prolongation of life; it was impossible that art could do more than it has done under these circumstances.

The most that can be said in favour of Louis is, that he was not so profoundly ignorant as many monarchs have been. Though possessed of no sound knowledge, no enlightened views of society, he was yet a very fair scholar, so far as scholarship consists in Latin and Greek: he is even said to have written a decent comedy and two bad operas, and is allowed by all to have been an exceedingly pleasant companion. But these are not the qualities, nor the knowledge, which make a great or even a useful monarch. Classical learning is only good where there is something better—where it is the ornament, not the substance: it fits no man for any of the actual occupations of life, and least of all for that of royalty. A monarch must know something more than is to be learnt from such sources; and when the sycophants of power extol a king for his love of music, the fine arts, the classics, and, worst of all, for his gentility, we may be quite sure it is because they have nothing else for which to praise him. Had Louis been a wise legislator, a just ruler, or even a conqueror, we should have heard little of his classics or his operas; but as he was none of these, they praise the individual monarch at the expense of royalty in general, and make it a great virtue in him that he is not quite a blockhead. If he does not know the rules of government, he at least knows the rules of syntax; and if he has forfeited his word, and signed away the liberty of his people, he has at least done it in good language. Who, therefore, shall complain? No man of taste and loyalty; no man who is not a radical, a common disturber, in short, an enemy to the Holy Alliance, and therefore a fit subject for the sword or the rope, according to the fashion of the country.

But, with all his faults, it is probable that Louis will be regretted. His successor is a bigot, and from bigotry no good can come, except to the church; and reports are already current of intended advantages to the clergy, who will not be slow to grasp at the occasion. But, in other respects, it does not appear that there will be any material change in the policy of the French government. Charles X., the first king of that name in France since the year 1574, has inherited the ideas with the throne of his brother, and has even retained the minister Villèle, with his dependents.

SOUTH AMERICA.

The celebrated adventurer, Iturbide, has at length met with the fate which every honest man must wish to those ambitious beings, who would usurp an undue authority over their fellow-creatures. On the 14th of July he landed at Soto Marina, from the English brigantine *Spring*, in company with a foreigner, who called himself Charles de Boneski. The latter landed first, and gave out that he and his companion had come to Mexico, to settle with government an extended plan of colonization; but the authorities being forewarned, Iturbide was soon seized and despatched to the congress; and by that assembly he was ordered to be executed on the evening of his arrival, the 29th of June, when he was accordingly

ingly shot. A provision for his wife and family has already been proposed in congress,—a measure as honourable as it is politic. Mexican bonds have risen in consequence of this intelligence. The following extract from a private letter will shew the feelings of the South Americans on the subject:—

"*Mexico, July* 28.

"Nothing can exceed the satisfaction produced here, among all ranks, by the news of the capture and death of Iturbide, which you will see in the enclosed papers. It has restored confidence in a surprising manner. So long as Iturbide remained, he was a sort of stalking horse for every unprincipled adventurer to look up to. I do now begin to see some chance of our getting into a state of settled order and repose. It is, I believe, arranged that this Government is to be assimilated to that of the United States, and placed under one president, instead of an executive composed, as the present is, of three persons. General Bravo will be the president in all probability. The expedition of the Anglo-Mexican Mining Company has arrived in this city, consisting of about forty persons.—They leave for Guanaxuato in a few days, where they are to begin practical operations. They have been remarkably well received all the way through the country. The effect on this country will be great. Thousands of persons will be put into employment, and money will come into circulation throughout all classes. For some time the rich mining proprietors have received no income from their mines, and the city of Guanaxuato, where the principal mines are, has had its population reduced from 80,000 down to 30,000."

It appears too that the cause of national independence is advancing in the other parts of South America, as well as at Mexico. Olaneta has abandoned the royalists in Peru; and in an action between the Columbian schooner *General Padilla*, and the Spanish brig *Marinero*, the latter was blown up. None of the crew were saved, except those forward, who were taken up by the crew of the former, which suffered little in the fight.

As illustrative of the present state of South America, we quote the following article from *The Times*, which gives an admirable account of the political and geographical relations of Colombia:—

This quarter of America is the only one which has received a new name since its declaration of independence, and the union of its provinces under its present constitution. We recognize in the titles and boundaries of the new states of Mexico, Buenos Ayres, Chili, and Peru, the designations and limits of the old colonial vice-royalties of the same names. The colonial yoke has been thrown off—the Spanish Viceroy has been exchanged for the president or political chief of an independent state—the Viceregal Council has been transformed into a senate, or an assembly of representatives—the Viceroyalty has become a republic—and the ancient Spanish *audiencias* have started up free provinces; but the old geographic names and boundaries are the same, and we are at no loss in determining their position. Colombia, on the other hand, is a new name, and a geographer of two or three years back would not recognize in it the old Spanish Viceroyalty of New Granada, and the *Capitania-General* of Caraccas. Perhaps, in this case, some designation was necessary to mark a union of two states formerly separated; and as neither of them had a title that could well be extended to the other, a new one was the more necessary and excusable. *Colombia*, which the north American states neglected to appropriate was adroitly laid hold of by the new authorities in the south, and applied probably, without pedantry, to the region which Columbus pointed out to the enterprise of his countrymen in his fourth and last visit to the world which he had discovered. This vast commonwealth, extending from the Caribbean sea to Peru, and from the Pacific to the Atlantic Ocean, embracing a territory nearly as large as all Europe, is inhabited only by about three millions of people, who have succeeded in conquering their independence, after a severer struggle than any of the other states have been called upon to sustain, and who now exhibit a higher example of social order than scarcely any of the other republics have yet reached. By one of the papers which lies before us, we find that about the middle of June last a new territorial division of the state was decreed. By this decree, Colombia is divided into 12 departments, each of which is divided into a number of provinces; and the latter, again, into a number of cantons. The 12 departments, with their capitals, are the following; 1, Orinoco, the capital of which is Cumana; 2, Venezuela, the capital of which is Caraccas; 3, Apure, the capital of which is Barinas; 4, Zulia, the capital of which is Maracaibo; 5, Boyaca, the capital of which is Tanja; 6, Cundinamarca, the capital of which is Bogota; 7, Magdalena, the capital of which is Cartagena; 8, Cauca, the capital of which is Popayan; 9, Ystmo, the capital of which is Panama; 10, Euador, the capital of which is Quito; 11, Lasuay, the capital of which is Cuença; and 12, Guayaquil, with its capital of the same name.

NORWAY.

The storthing, or parliament of Norway, was prorogued by the king on the 9th ult., on which occasion the usual compliments passed, and perhaps with the

the usual sincerity. The king had repeatedly urged the storthing to add the power of an absolute veto to the royal authority; but this encroachment was steadily resisted. Another desire, expressed by Charles John for the institution of orders of nobility in Norway, met with no less opposition. It is a matter for remark, but not for surprize, that all kings will encroach upon the liberties of their people, as far as they are suffered by the cowardice or the imbecility of the governed.

GREECE.

The attempt upon Samos, so long threatened, has been made at last, and has ended in the total destruction of the Turkish forces. The Capitan Pacha was allowed to land his troops; when the Grecian fleet, under Miaulis, who had watched all his movements since the capture of Ipsara, attacked him in the rear, before he had recovered from the confusion of the landing. One ship of the line, three frigates, and thirty gun-boats were destroyed by the Greek fire-ships. The only stain on this glorious victory is the barbarous cruelty of the Greeks, in immolating the poor wretches, who escaped from the fury of the flames, and sought a refuge on shore.

INCIDENTS, MARRIAGES, AND DEATHS, IN AND NEAR LONDON,

With Biographical Memoirs of distinguished Characters recently deceased.

CHRONOLOGY OF THE MONTH.

AUG. 21.—A fire broke out at the saw-mills of Messrs. Turner and Co., Gravel-lane, Houndsditch. In two hours seven or eight houses were reduced to ruins. At this fire (and it ought to be mentioned), as well as at several others that have recently happened in the metropolis, the engines were without water, through some neglect or want of management of the Water Companies.

31.—The extensive factory of Mr. Dallett, wax and tallow chandler, Putney, destroyed by fire. The damage estimated at 10,000*l.*

Sept. 2.—A numerous and respectable meeting of the inhabitants of St. Botolph, Aldgate, took place, to adopt measures to resist the claims of the lay impropriators of 2*s.* 9*d.* in the pound on the rack-rents of the parishioners. The following resolution was put and carried:—"That the repeated attempts on the part of the lay impropriators and clergy in the city of London and its liberties, to enforce the statute of Henry VIII. and the decree thereon referred to, by producing disunion and litigation, are alike destructive of the interests of the Church Establishment, and of the peace and happiness of the parish."

3.—The first stone of a spacious stone bridge laid at Brentford. It will be of one arch, cased with granite, and when finished, will give the great western entrance of the metropolis a noble and imposing appearance.

10.—Part of a new building belonging to Mr. Galloway, Chick-lane, Smithfield, gave way, and with the scaffolding, on which were nearly twenty men, fell to the ground. Eight of them were carried to St. Bartholomew's Hospital dreadfully bruised, two of them soon after died.

13th.—Twenty Irish labourers returning from England after the harvest, in the St. George Steam Packet, from Liverpool, washed overboard and drowned.

16.—Louis XVIII. of France died,—succeeded by Charles Philippe, Count d'Artois, under the title of Charles X.

18.—Intelligence received that Iturbide, Ex-Emperor of Mexico had been shot by order of the Mexican Congress in that city, for attempting to regain the sovereignty.

The New River Company have erected a steam-engine of 120 horse-power, at Queenhithe, for raising water from the Thames.

22.—A meeting of the committee for commencing a steam navigation to India took place. Several scientific gentlemen in the service of the East-India Company, who had been appointed to investigate the plan, were present, and they reported favourably of the undertaking. It was finally determined to carry it into immediate execution. The route is intended to be round the Cape of Good Hope, and not by the Red Sea as was intended.

— A fire broke out in the warehouse of Mr. Mills, an extensive dealer in Leather, Whalebone, &c., occupying the houses 14, 15, and 16, in Silver-street, Wood-street, Cheapside, and which soon communicated to the whole front of the three houses, which were destroyed. The two houses adjoining also much damaged. The property consumed belonging to Mr. Mills alone, is estimated at about 10,000*l.*

— The premises of Mr. Lowder, Timber-merchant, in Tabernacle-walk, near the City-road, accidentally burnt down.—There was nearly 10,000*l.* worth of property destroyed or damaged.

MARRIED.

Mr. Charles Hodgson, of the Grange-road, to Miss Hester Mary Lewis, of Kensington.

At Lambeth, E. Biddell, esq. to Miss Jane Colchester, of Chatham.

J. Nelson, esq. of Doctors' Commons, to Caroline, daughter of Dr. Burrowes, of Gower-street.

W. W.

W. W. Hastings, esq. of Gray's-inn, to Sophia, eldest daughter of Dr. Burrowes, of Gower-street.

John Bate Cardale, esq. of Bedford-row, to Emma, daughter of the late T. Plummer, esq. of Clapham.

Sir Thomas E. Croft, bart. to Sophia, daughter of Richard Lateward, esq. of Ealing Grove.

Mr. David Landell Chambers, of Bishopsgate-street, to Miss Jane B. Mills, of Broad-street buildings.

John Furtado, esq. to Miss Kimber, both of Walcott-place, Lambeth.

George Gregory Hussey, esq. to Jane, daughter of S. Bayly, esq. both of Kensington.

J. W. Ogle, esq. to Anne, daughter of James Scott, esq. of Bromley.

Arthur Easton, esq. of the Board of Controul, to Miss Catherine Raut.

Robert Wilson, esq. of Gloucester, to Charlotte Maria, daughter of James Hallett, esq. of Dulwich.

W. W. Jenkins, esq. of Red-lion-square, to Miss Martin, daughter of the late Thomas Martin, esq. of Gracechurch-street.

Mr. Thomas Jones, of Staines, to Miss Sarah Barton, of Eton

Henry Cobb Cornwall, esq. of Great Knight-rider-street, to Louisa, daughter of John Richardson, esq. of Bury-street, St. James's.

Richard Torin Kindersley, esq. to Mary Anne, daughter of the Rev. John Leigh Bennett, of Thorpe-place, Surrey.

George Newman, esq. of Clapham-rise, to Miss Poole, of Brixton-place, Surrey.

William Dance, jun. esq. to Miss Waters, both of Holloway.

James Reeves, esq. of Ely-place, to Jane Mary, daughter of Henry Carington Bowles, esq. of Myddleton-house, Enfield.

Dr. Williams, of Bedford-place, to Miss E. L. M. Phillips, daughter of the late J. G. Phillips, esq. M. P. of Cwingwilly, Carmarthenshire.

Mr. H. Rossi, of Lisson-grove, to Catherine Ann, daughter of the Rev. R. Wilson.

Mr. John Gregson, of Tavistock-place, Tavistock-square, to Ann, daughter of Henry Shuttleworth, esq. of Great Bowden, Leicestershire.

At Mary-la-bonne church, the Rev. Henry L. Neave, son of Sir T. Neave, bart. to Agnes Ann, daughter of the late Rev. Robert Sheffield.

The Right Hon. Lord Elliot, son of the Earl of St. Germains, to Lady Jemima, daughter of the late Marquis of Cornwallis.

At Sudbury, C. Murray, esq. to Miss Anderson, both of that place.

The Rev. G. Mathew, vicar of Greenwich, to Mary, daughter of S. Enderby, esq. of Blackheath.

At Tottenham, Hugh Fraser Sandeman esq. to Julia, daughter of Lewis Burnand, esq. of Stamford-hill.

John Jefferys, esq. of Blakesbrook, Worcestershire, to Caroline, daughter of Thomas Davy, esq. of Gould-square.

At St. John's, Hackney, Mr. J. M. Morris, to Jane Frances, daughter of the late John Weston, esq.

William Reid, esq. of Chelsea, to Catherine Sophia, daughter of Benjamin Duncombe, esq. of Alfred-place.

James W. Cooper, esq. of the Treasury, to Harriet Angelica, daughter of Thomas Evans, esq. of Park-place, Kensington.

Lord Ellenborough, to Jane Elizabeth, daughter of Rear Admiral Digby.

John Bayley, esq. F.R. and A.S. of Upper Harley-street, to Sophia Anne, daughter of the Right Hon. Robert Ward, of Bangor Castle, in the county of Down.

DIED.

At Poplar, *Elizabeth*, wife of Edward Stock, esq.

At Peckham, 21, *Eleanor*, daughter of William Frampton, esq. of Leadenhall-street.

At Hackney, *Susanna Letitia*, daughter of the Rev. Archdeacon Watson.

At Feltham-hill, Middesex, 78, *Mary*, widow of John Shaddick, esq. one of the sworn clerks of the Court of Chancery.

In Stamford street, *Samuel John Maude, esq.*

At Strand-on-the-Green, 79, *Mrs. Mary Trimmer.*

At Gothic Cottage, Belmont-row, Vauxhall, 31, *Miss Harriet Rowe.*

In Charles-street, Cavendish-square, 28, *Gibbes T. Ross, esq.*

At Dalston, 74, the *Rev. James Maggs*, vicar of Ewell.

At Lower Mall, Hammersmith, 50, *Francis Francis, esq.*

At Edmonton, 81, *Elizabeth*, widow of the Rev. Joseph Gellibrand.

In Edwards'-square, 73, *Mrs. Aspinall.*

In Fleet-street, 25, *David Price, esq.*

At Charing Cross, *Alexander Stratton, esq.* of the Golden Cross.

At Grove-hill, Camberwell, 22, *Charles*, son of Jacob George Wrench, esq. student of Lincoln's-inn.

In London, 72, the *Rev. Wm. Bentley Crathern*, late of Dedham, Essex; for thirty-seven years he was a much esteemed dissenting minister in that place.

In Baker-street, 79, *Lieut. Gen. Andrew Anderson*, of the East-India Company's service, at Bombay.

In Burton Crescent, within a few days of his 84th year, *John Cartwright, esq.*, commonly called Major, having formerly been Major to the Nottinghamshire militia. For forty years he had been the undeviating advocate of civil and religious liberty; and in private life, he was as much esteemed for his many amiable qualities as for his public consistency. While a boy, Major Cartwright left his paternal roof to engage in the service of Frederic the Great of Prussia, whence he returned in 1758, and entered as a midshipman in the navy, at the age

age of 18, under Lord Howe. In the same year he was at the capture of Cherbourg and the destruction or its naval basin; and in 1759 was in the glorious action on the French coast, when Sir Edward Hawke defeated Conflans. When Lord Howe, who commanded the *Magnanime* in the above action, was selected by the Admiral to make an attack on that part of the French fleet which escaped into the river, only one lieutenant and two midshipmen were taken by his Lordship out of his own ship to attend him on that important service; Mr. Cartwright was one of the latter. It was while with his Lordship he showed his daring spirit by leaping from a 74-gun ship into the sea, as the ship was under sail, to save the life of a young gentleman who had fallen overboard. In 1791, Major Cartwright met the friends of freedom at the Crown and Anchor tavern in the Strand, on the 14th July, to celebrate the anniversary of the fall of the Bastile; and for which the worthy Major received so many insults and provocations from the Lord Lieutenant, that he was provoked to resign the office of Major of the Nottinghamshire militia; but the Deputy-Lieutenants "Resolved unanimously, That the thanks of this meeting be given to John Cartwright, Esq. for his services in the Nottinghamshire Regiment of Militia." From that period the exertions of Major C. have been incessant towards obtaining a reform in the House of Commons. In the general naval promotion, after the coronation, he was advanced to the rank of master and commander. He was rather a consistent politician than an acute or profound thinker. He was tenacious of what he conceived to be right; but he could with difficulty be brought to co-operate with other people. In short, it was necessary to adopt his views, and nothing but his views. Times and seasons, too, were nothing to him. It was of no use to tell him that by adopting a certain course at any particular time he would injure the cause; his answer was always, "I never concede any thing to expediency." His style was peculiar: from his stern countenance and his republican air, one would have expected that his manner of writing would be plain and unadorned. On the contrary, he never perhaps wrote a single sentence which did not contain an image of some kind or other. Similies spun out to a merciless length, and leaving no part of the parallel to be supplied by the imagination of the reader, found their way even into his petitions and resolutions.

At Stoke Newington, *Robert Bevill, esq.* a magistrate of Worship-street, and many years Recorder of Lynn.

At Kingsdown-house, Somerset-street, *Catherine*, wife of Aaron Moody, esq.

In Rockingham-row, New Kent-road, 83, *Joseph Saxton, esq.*

At Sydenham, 67, *Andrew Lawrie, esq.* of the Adelphi, a Justice of the Peace for Westminster and Middlesex.

At Brompton, 89, *William Palmer, esq.* a director of Greenwich Hospital, and formerly a commissioner of the navy.

In Old-street-road, 31, *Sarah*, wife of the Rev. S. Blackburn, A.M.

In Edwards's-place, Kensington, 75, *J. Moore, esq.* late of Vale-place, Hammersmith.

In Bishopgate Within, 27, *Mr. Hugh Blair Finlay.*

At Brentford, *Mrs. Mary Clark.*

At Newington-place, Kennington, *Mrs. Sarah Dawson.*

In Tavistock-place, Tavistock-square, 65, *Jesse Gregson, esq.* of Moor-house, Hawkhurst, Kent.

At Lambeth, 74, *Isaac Riches, esq.* one of the Poor Knights of Windsor. He served as an officer fifty-four years, and during the late war in the barrack-department of the Ordnance Department at Woolwich.

At Tottenham, 78, *J. Dobree, esq.*

In Berner's-street, 66, *Dr. Clough.*

At Hastings, 26, *Mr. William Richardson*, of the respectable firm of Messrs. Hetherington, Burn, and Richardson, of Friday-street, Cheapside.

In York-street, Covent-garden, 39, *Mr. John Henry Bohté*, foreign bookseller to the King, generally and deservedly lamented.

In Park-street, *Dr. Luby.*

At Deptford, *Mr. Edward John Bromley.*

At New Brentford, 84, *Mr. Moses Banks.*

At Turnham Green, *Mr. David Grant*, of Picket-street, Temple-bar. The universal knowledge and varied talent which evinced itself on every subject he discussed, secured to him the esteem of a numerous circle of scientific friends, who have to regret that he did not live to complete a series of mechanical inventions, relative to naval and garrison artillery, which had much engaged his attention. Among the numerous subjects which occupied his active mind, Mr. Grant made some remarkable improvements in the apparatus and manufacture of soda, magnesia, Seltzer, and other mineral waters, which for several years secured him a large proportion of the public patronage, and the medical world in particular, which we trust will be continued to his widow and family.

In Berkeley-square, 75, the *Right Hon. John Viscount Hampden.* He had only enjoyed his titles since the 20th of last month, when they devolved to him on the death of his brother, and having died without issue he is succeeded in the entailed estates by George Earl of Buckinghamshire.

On the 6th ult. the *Right Hon. John Roper, Lord Teynham.* He is succeeded by his first cousin, Henry Roper Curzon, esq.

ECCLESIASTICAL PROMOTIONS.

Rev. W. C. Fetton, to the rectory o Cowthorp, Yorkshire.

Rev. John Overton, M.A. to the perpetual curacy of Bilton-in-Holderness.

Rev.

Rev. John Sheepshanks, M.A. to the vicarage of St. Gluvias, Cornwall.

Rev. Mr. Knight, appointed perpetual curate of St. Paul's church, Sheffield.

Rev. William Palmer, to the vicarage of Petesworth, in the county of Warwick.

Rev. Richard Jenkyns, D.D. to the prebendary of Dindar, in the Cathedral church of Wells.

The Rev. George Crookshank, B.A. to be domestic chaplain to the Countess Dowager of Clonmell.

Rev. Wm. Frederick Hamilton, B.A. is appointed domestic chaplain to Viscount Melbourne.

On Wednesday, the 1st instant, the Rev. J. Hatchard, M.A. was instituted by the Lord Bishop of Exeter to the vigarage of St. Andrew's, Plymouh.

Rev. G. B. Tuson, to the vicarage of Huish, with the chapelry of Langport annexed.

Rev. Dr. Jago, to the vicarage of Milton Abbot, Devon.

Rev. D. Jenkins, B.A. to the vicarage of St. Goran, Cornwall.

Rev. T. Freke, M.A. to the vicarage of Loddiswell, with the chapel of Tout-Saints annexed, Devon,

Rev. William Harriott, M.A. to the vicarage of Odiham, with the chapelry of Grewell, Hants.

Rev. Samuel Hill, B.A. to the living of Snargate, diocese of Canterbury.

Rev. John Wing, to the rectory of Cheynies, Bucks.

Rev. Mr. Hume, to the vicarage of Warminster.

Rev. John Howard, M.A. to the rectory of Tacolnestone, Norfolk.

Rev. W. H. Arundell, to the rectory of Cheriton-Fitzpaine, Devon.

Rev. J. W. B. Landon, to the rectory of Lillinstone Lovell, Oxfordshire.

Rev. J. C. Clapp, to the Rectory of Clusten, Wilts.

Rev. Robert Holdsworth, to a prebendary stall in Exeter Cathedral.

Rev. Joseph Badely, to the vicarage of Blewbury, Berks.

Rev. Thomas Nelson, to the church and parish of Little Dunkeld, in the county of Perth.

PROVINCIAL OCCURRENCES,

WITH ALL THE MARRIAGES AND DEATHS;

Furnishing the Domestic and Family History of England for the last Twenty-seven Years.

NORTHUMBERLAND AND DURHAM.

THE first anniversary of the Botanical and Horticultural Society for the counties of Northumberland, Durham, and Newcastle-upon-Tyne, took place within the month. C. M. Nigge, esq., in the chair.

It is in contemplation to erect a chain bridge, similar to the one at Bangor Ferry, over the River Tyne, between North and South Shields.

Three of those *rare fish, the lump-sucker* (*cyloplerus lumpus*), were lately caught by the fishermen on the coast of Durham and Northumberland: the largest was nineteen inches and a-half long, and weighed 10llbs. A gentleman resident at Bywell has preserved these fish in his collection.

Married.] Mr. Henderson, to Miss Peers; Mr. O. O. Ingo, to Miss E. Berkley; Mr. R. R. Baker, to Miss E. Scott; Mr. C. Burden, to Mrs. E. Gibb: all of Newcastle.—Mr. A. Mather, of Newcastle, to Miss M. Cameron, of Gateshead.—Mr. A. Palmer, to Miss M. Spoors; Mr. W. Peveral to Miss A. Southern: all of Durham.—Mr. W. Ellice, of Pickering, to Miss M. Nixon, of Darlington.—At Darlington, Mr. T. Forster, to Miss E. Welsh, of Manchester.—Mr. T. Hands, of Stockton-upon-Tees, to Miss Coates, of York.—Mr. R. Greenwell, to Miss M. Burn; Mr. H. Beckwith, to Miss A. Lowdon: all of Lambton.—Mr. W. Armstrong, of Heddon, Berks, to Miss Hawthorn, of Walbottle.—The Rev. John Metcalfe, to Miss E. Chapman, of Thornton Aust, Wensley-dale.—Mr. W. Carrick, of Byker, to Miss M. Gallon, of Heaton.—Mr. Wilson, of Blyth, to Miss Bell, of North Shields.

Died.] At Newcastle, in Pilgrim-street, 64, Mrs. J. Affleck.—26, Mrs. A. Brown, deservedly regretted.—In the Westgate, 34, Mrs. Smith.—At the East Ballast hills, 74, Mrs. J. Graham.—On the Bankside, 87, Mr. P. Houghton.—37, Mr. W. Bullock.—In Green-court, at an advanced age, Joseph Airey, esq.—At Gateshead, 44, Mrs. C. Bowstead.—28, Mrs. S. Robson.—87, Mrs. M. Pearson.

At Durham, 74, Mrs. E. Thompson.—In the college, 67, Mathew Woodfield, esq., steward to the Dean and Chapter.

At Sunderland, 64, the Rev. Thomas Mason, minister of the Scotch Church, Spring-garden-lane.—70, Mr. R. Wake.

At North Shields, in Dockwray-square, 63, the Rev. Chas. Charleton, M.A., vicar of Tynemouth, generally and justly regretted.—55, Mrs. E. Collingwood, of the Low Lights.—In Bedford-street, 28, Mr. R. Flett.—57, Mrs. E. Johnson.—Mr. W. Richardson, notary public, suddenly. He was the author of a new Translation of the Odes of Anacreon of Teos.

At South Shields, 80, Mrs. Golightly.

At Darlington, 71, Mr. Jer. Watson, suddenly.—69, Mr. M. Toole.

At Bishopwearmouth, Miss A. C., daughter

ter of the late James Morrison, esq., of the Mint.—81, Mr. John Vaux.

At Morpeth, 77, Mrs. S. Bowen, widow of the Rev. Thos. B. M. A., late of Fulham.—33, Mr. Robt. Creighton.

At Wooler, 40, Miss Davison, suddenly.—At Rise Carr, near Darlington, Mr. J. Gent, suddenly.—At Threepwood, 24, Mrs. Arther, much respected.—At Chester-le-street, 54, Mrs. M. Mowbray.—67, Mrs. M. Thompson.—29, Mrs. S. Brown.

CUMBERLAND AND WESTMORELAND.

Carlisle Exhibition.—The institution established in Carlisle in 1823, for the promotion of the fine arts in the North of England, was within the month opened for the second annual exhibition. Pictures from almost every great English master were displayed; the company, or visitors, was numerous.

The Netherby Farming Society held their fourth Annual Meeting at the Graham's Arms Inn, Longtown, within the month, when the prizes for the current year were adjudged to several meritorious individuals.

Married.] Mr. W. Neasdale, to Miss E. Dixon, both of Carlisle.—Mr. T. Tomlinson, of Carlisle, to Miss J. Bell, of Brampton.—Peter Richardson, esq., to Miss M. Moore; Mr. Wm. Stamper, to Miss F. Wallace: all of Whitehaven.— —Johnstone, M.D., of Cockermouth, to Miss J. Jopson, of Buttermere.—Mr. Jas. Derome, to Miss A. Skaife; Mr. J. Whitehead, to Miss A. Yar; Mr. W. Shackley, to Miss Hawthornwaite: all of Kendal. — Mr. T. Webster, of Ingleton, to Miss Burrow, of Wrayston-hall.—Mr. W. Sands, of High Wrea, to Miss C. Benn, of Middletown, St. Bee's.—Mr. J. Coulthard, to Miss J. Elliott, of Woodside, Flimby.

Died.] At Carlisle, 38, Mrs. Margt. Caldwell.—In Botchergate, 88, Mr. J. Hatton.

At Whitehaven, 89, Mr. Jer. Townley.—62, Miss Watson, generally esteemed and regretted.

At Parton, 42, Mr. Henry Collins, painter, of Whitehaven.

At Workington, Capt. Dalrymple.

At Kendal, 40, Mr. Jas. Dixon.—54 Mrs. Dalrymple.—38, Mrs. M. Clark.

At Brampton, 74, Mr. L. Townley, much respected.

At Wigton, 54, Mr. Jas. Fisher.—68, Mr. J. Westmorland.—60, Mr. A. Johnston.

At Stanwix, 24, Lieut. J. Fawcett.—At Blackwell, 60, Mr. J. James.

YORKSHIRE.

It is in contemplation to erect a suite of public-rooms at Hull, by which the philosophical, choral, and florist societies will be accommodated. A committee of four from each society has been appointed to accomplish this desirable purpose.

A public meeting was lately held at Sheffield, at which the Master-Cutler presided, for considering the plan for uniting four canals at Peak Forest, Sheffield, Chesterfield, and Cromford, and the railway from the Cromford Canal to Mansfield.

Married.] Mr. H. Dresser, to Miss E. Garbutt, both of Hull.—Mr. J. Hayes, jun., to Miss M. Calvert; Mr. P. Fardy, to Miss M. Machen; Mr. J. Thwaites, to Miss S. Lupton; Mr. Fred. Blackburn, to Miss S. Overend; Mr. J. Kaye, to Miss E. Atkinson; Mr. E. Buckley, to Miss Owden, all of Leeds.—Mr. N. Brown, of Leeds, to Miss S. Carr, of Gomersall.—Mr. R. Coldwell to Miss M. Stead.—Mr. W. B. Haigh, of Wakefield, to Miss Skelton, of Pontefract.—Mr. J. Hunter, of Emley, to Miss P. Walker, of Westgate-end, Wakefield.—Mr. J. Bayes, of Halifax, to Miss M. Micklethwaite, of Clifton.—Mr. J. Tyas, of Huddersfield, to Miss E. Beaumont, of Kirkheaton.—Mr. J. Dinmore, to Mrs. Lazenby, both of Knaresborough.—Mr. G. Shaw, to Miss M. A. Stocks; Mr. T. Stutterd, to Miss E. Brook: all of Longwood.—Mr. T. Mallinson, of Lindley, to Miss B. Haigh, of Slaithwaite.—Mr. J. Wilson, to Miss M. Smithson, both of Bramley.—Mr. W. Foster, to Miss S Jackson, both of Skircoat.—Mr. J. Haigh, to Mrs. S. Haigh, both of Mirfield.

Died.] At York, on the Old Sand-hill, Mr. Jas. Monkman.—Miss Wilbank, suddenly.—In Skeldergate, 41, Mr. George Fowler, suddenly.—Mr. John Lawton.

At Leeds, 77, Mrs. A. Prince.—In Duke-street, at an advanced age, Mr. Isaac Field, of the firm of Messrs. Field, Royston, and Field, and a member of the Society of Friends.—In Kirkgate, 47, Mr. F. Stubbs.

At Wakefield, 62, Mr. W. Dyer.—In Providence-street, Mrs. Wood, suddenly.—Mr. John Senior.

At Halifax, on Savile-green, 70, Mrs. Ralph, widow of the Rev. John Ralph.—Miss Kershaw.

At Huddersfield, Mr. Hudson.—Mrs. Crann.

At Knaresborough, 68, Mr. W. Hewgill.

At Bradford, Richard Holmes, esq., of the Lodge, Mount Pleasant.

At Barnbow, 85, Mr. T. Braim.—At Heckmondwike, 67, Mr. F. Allott, much respected.—At Lofthouse, 72, Mrs. A. Hawksworth.—At Hunslet, 87, Mr. Jos. Varley.—At Yeadon, 66, Mr. Jer. Slater.—At Westfield-house, the wife of the Hon. E. Hawke.

LANCASHIRE.

At the late Lancaster assizes there were only twenty-nine prisoners for trial, and none were remarkable for atrocity.

A numerous and respectable meeting lately took place at Manchester, for establishing in that town a portable Gas Company, for the supply of houses, shops, &c. with compressed oil or other gas. The establishment was resolved upon.

It has been ascertained that no less than

30,000 power looms are now in use in the district that surrounds Manchester.

	lbs.
The quantity of cotton converted into yarn in Great Britain and Ireland in one year is about	160,000,000
The loss in spinning may be estimated at one ounce and a-half per pound	15,000,000
Quantity of yarn produced	145,000,000
Amount, supposing 18d. to be the average price per pound	£10,875,000

According to Mr. Kennedy's calculation that every person employed in spinning produces 900lbs. per annum, the number of persons employed is 161,111. The number of spindles employed, supposing each to produce 15 lbs. weight per annum, is 9,666,666. The capital invested in buildings and machinery cannot be less than 10,000,000. It is calculated that the rental of Manchester, including Salford, Chorlton Row, &c., will be increased at least 15,000*l.* this year by new buildings. The increase is principally in cottage property, under 12*l.* a-year.

Married.] Mr. Jos. Edwards, to Arabell, daughter of John Bancks, M.D.; Mr. Chas. Hughes to Miss M. Wardle; Mr. J. Walker, to Miss Birch: all of Manchester. —Mr. J. Fielden, of Manchester, to Miss M. Taylor, of Rochdale.—Mr. Weston, of Manchester, to Miss H. Chapman, of Macclesfield.—Mr. W. Beard, to Miss C. Critchley; Mr. B. Brown, to Miss S. Cockbane; Mr. W. S. Helsby, to Miss G. Mutch; Mr. J. Horward, to Miss M. Phythian; Mr. R. Wright, to Miss H. Denbigh; Mr. J. Crichton, to Mrs. E. French: all of Liverpool.—Mr. J. Luck, of Hartlepool, to Mrs. Adamson, of Liverpool.—Mr. T. Webster, of Ingleton, to Miss Burrow, of Wrayton-hall.

Died.] At Manchester, 56, Mrs. Jannette Ainsworth, of Great Lever, near Bolton. —Mr. E. Parkes, late of Deansgate.—26, Mr. E. J. Weaver, generally respected.

At Liverpool, Mr. W. Armstrong.—26, Mr. J. Rhodes.—66, Mr. Jos. Fox, generally and justly lamented.—58, Elizabeth, widow of John Smith, esq., of Rodney street. — 108, *Mary Griffith.* — 40, Mr. S Mathers —60, Mr. W. Green.

At Bury, Mary, wife of the Rev. G. Harris.—66, Mrs. Unsworth, widow of the Rev. Henry Unsworth, A.M., formerly minister of St. John's, much and deservedly regretted.

At Preston, 88, Mr. T. Nayler, generally regretted.

At Warrington, 26, Mr. Wm. Leigh, deservedly regretted.—60, Mr. Jos. Banks.

At West Derby, 80, Mr. W. Purser.—At Edge-hill, near Liverpool, 41, Robert Chappell, esq.—At Wavertree, 53, Mrs. E. Newby.

CHESHIRE.

Married.] Charles Calley, esq., to Miss M. A. Royle, both of Chester.—The Rev. Robt. Clowes, A.M., Vicar of Knutsfor, to Catherine, daughter of the Rev. T. Jee, A.M., of Thaxted.—Mr. R. Crook, of Over Dariven, to Miss M. Walker, of Parkgate. —Mr. W Bowker, to Miss Corley, both of Lymm.

Died.] At Chester, 84, Mrs. Williams, widow of Bennet Williams, esq., generally and justly esteemed and lamented.

At Macclesfield, Mr. W. Stubbs.—At Stockport, Miss Anabell Armstrong.—At Knutsford, 70, Wm. Thomas Quayle, esq. —At Kingsley, 50, William Hall, esq., much and deservedly lamented.—At Dukenfield-hall, 44, John Newton, esq.

DERBYSHIRE.

A canal at Ashbourn has lately been projected by Mr. Johnson, and his surveys submitted to, and approved by a recent meeting of the land-owners and traders of the district of Ashbourn. It is proposed, by a line little more than twenty miles in length, passing by the town of Ashbourn, to connect the Derby canal near to that town, with the Uttoxeter branch of the Trent and Mersey canal. Its chief advantages will consist in conveying coals from both of its extremities into the district traversed by it, and the export of admirable freestone and limestone, some of it possessing water-setting properties, from the quarries with which it would connect in Staffordshire and on the east of Ashbourn; besides opening a shorter and more direct water communication between Derby, Leek, the Wiches, Liverpool, Manchester, &c.

Married.] Mr. F. Field, to Miss M. Lucy; Mr. Lawley, to Miss Harris: all of Derby. —Mr. E. Taylor, of Frisby, to Miss G. Bamford, of Derby.—Mr. J. Spendlove, of Shottle, to Miss P. Marshall, of the Cliff-house, near Crich.—Mr. Jos. Oakden, of Ashford in the Willows, to Miss M. A. Hopkins, of Cubley.

Died.] At Derby, Mr. Benj. Gilbert. —In St. Helen-street, Miss M. Smith.

At Belper, 64, Mrs. Cath. Hibbert.—At Openwood-gate, 68, Mr. Edw. Simpson.—At Bonsall, 72, Mr. E. Harding.

NOTTINGHAMSHIRE.

We regret to state that the black fever has lately been introduced into Nottingham. Several persons have fallen victims, and others remain dangerously ill. The infection is supposed to have been brought in bales of cotton from Egypt.

Married.] Mr. E. Brown, to Miss S. Greaves.—Mr. J. Stubbs, to Miss P. Riley; Mr. E. Oldknow, to Miss A. Goodwin; Mr. W. Tansley, to Miss T. Chandler; Mr. D. Proctor, to Miss S. James; Mr. W. Hopkins, to Miss M. F. Barker; Mr. Jos. Stockdale, to Miss M. Hickling: all of Nottingham.—Mr. J. Burton, of Nottingham, to Miss C. Elston, of Sheffield.—Mr. W. Dabell, of Nottingham, to Miss A. Tipper, of Derby.—Mr. J. Woodhouse, of

of Nottingham, to Miss Clayton, of Loscoe.—Mr. T. Whitworth, of Ratcliffe-upon-Trent, to Miss H. Talbot, of Sutton-upon-Trent.—Mr. F. Rippingale, to Miss H. Flear, both of Newark.

Died.] At Nottingham, in Castle-gate, 86, Mrs. H. Wright.—In Snenton-street, 61, Mr. F. Goody.—In Barker-gate, Mrs. Elnor.—36, Mr. W. Pearson, late of Grantham.—In Nile-street, 39, Mrs. Haywood.—In Goose-gate, 54, Mr. W. Burdus.—Alexander Gordon Donaldson, esq., late of Dungark-place, near Castle Douglas, Scotland, justly esteemed.

At New Bradford, 38, Mrs. J. Wheatley.—At Beeston, 30, Mrs. A. Seymour.—At Carlton, 51, Mr. T. Cave.—At Ratcliff upon-Trent, 56, Mrs Allsebrook.—At New Radford, 46, Mr. S. Peach, regretted.

LINCOLNSHIRE.

The late Agricultural Show at Lincoln was well attended. Some fine stock were exhibited, and many entries were made for the premiums.

A wretched individual named James Wetherill, was lately executed on Lincoln castle-walls, for the murder of a Mr. W. Berridge, of Brigg.

Married.] Mr. F. Dodd, of Lincoln, to Miss H. Caseborn, of Halifax.—Richard Thorold, esq., of Weelsby-house, to Miss Frances Thunnard, of Boston.

Died.] At Gainsborough, 24, the Rev. Jas. Kennedy, generally esteemed and lamented.

At Grantham, 78, Mr. W. Routen.

At Louth, 84, Mr. Shadlock.

LEICESTER AND RUTLAND.

It has been stated that the Moira and Ashby-de-la-Zouch Baths were never so much resorted to as during the present season. The beautiful structure which contains the baths at Ashby is proceeding towards a completion; and the erection of a number of new houses in front thereof may be looked for by another season. A new inn upon an extensive scale is also likely to be built.

Married.] Mr. J. Warden, to Miss C. Mann, both of Leicester.—Henry Atkinson, esq., of Barnsley, to Miss M. Cole, of Leicester.—Mr. W. Martin, of Leicester, to Miss L. Flint, of Midhurst.—Mr. W. Britton, of Sapcote, to Miss Day, of the Humberstone-gate, Leicester. — Mr. J. Sharpe, late of Ashby-de-la-Zouch, to Miss Smith, of Donisthorpe.—Mr. H. Browne, of Ashby-de la-Zouch, to Miss E. Fowler, of Alton Grange. — M. J. Simpson, of Bretingby, to Miss A. Oldaires, of Cesters Over. — Mr. W. Beaumont, of Barrow-upon-Soar, to Miss F. Carter, of Coventry.—Mr. J. Wileman, to Miss F. Abbotts, both of Earl Shilton.

Died.] At Leicester, 77, Mr. Alex. Dudgeon.

At Hinckley, Mrs. Milligan, wife of Robert Milligan, esq.—Mrs. Cecil.—At an advanced age, Mrs. Appleby.

At Castle Donington, Mr. Hall.

At Ashbourne, 39, Mr. John Frith, jun.

At Long Clawson, 91, Mr. J. Hind.—At Medbourn, the Rev. W. Williams.—At Holwell, 41, Mr. Jos. Watts.—At Osgathorp, 22, Miss M. Simpson.—At Newton Harcourt, Mrs. Weston.—At Hugglescote, 51, Mr. Jos. Inglesant, late of Leicester.

STAFFORDSHIRE.

Married.] Mr. J. Wilkinson, of Walsall to Miss Em. Horner, of Wolverhampton.—Mr. York, to Miss M. Duncomb; Mr. W. Shoolbred, to Miss W. Wynn: all of Wolverhampton. — Mr. W. Sparrow, of Wolverhampton, to Miss S. Turton, of Gornal.—At Leek, Henry Cruso, esq., to Miss M. Badnall, of Highfield.—Mr. B. Harrison, of Butterton, to Miss M. Fox, of Boothby.—Mr. W. Woolley, to Miss C. Proud, both of Bilston.

Died.] At Wolverhampton, Mr. Benj. Molineux, 71, Mrs. H. Walton, late of Moor-street, Birmingham.

At Burton-upon-Trent, Mr. H. Bakewell, suddenly.—At West Brunwich, 77, Henry Seagar, esq., deservedly regretted.—At the Oaks, near Wolverhampton, 17, Miss M. A. Corsen.

WARWICKSHIRE.

A company has been recently formed at Birmingham for establishing a rail-road from that town through the Staffordshire collieries, and iron-works, by Wolverhampton, Nantwich, and Chester, to the Mersey, to communicate with Liverpool; with branches to Dudley and Stourbridge, to the Shropshire coal and iron-works, to the Staffordshire potteries and to Chester. The company propose to convey heavy goods between Birmingham and Liverpool at the rate of eight miles an hour, and for less than half the present cost of canal carriage. Loco-motive carriages are to be employed upon the road.

Married.] Mr. J. Marshall, of New John-street, to Miss M. A. Jefcoate, of Blooms bury-place; Mr. B. Bridgewater, to Miss Hathaway; Mr. B. Rogers, to Miss C. Fisher; Mr. W. Withers, to Mrs. E. Withers: all of Birmingham.—Mr. J. Wilson, of Dale-end, Birmingham, to Miss E. Birt, late of Ashted-cottage.—John Higgins, esq., of Bridge-Town, to Miss Em. Hunt, of Stratford-on-Avon.—The Rev. W. W. Greenway, LL.B., rector of Newbold Verdon, to Miss Emma Mayo, late of Coleshill.

Died.] At Warwick, 19, Miss M. Checkley.

At Birmingham, in Suffolk-street, 27, Miss Eliz. Sanders. — In Great Brooke-street, 64, Mr. T. Rochel.—In Suffolk-street, 26, Mrs. M. Shenton.—In Colemore-row, 33, of the firm of W. and T. Avery, Digbeth.—On Snow-hill, 44, Mrs. A. Cartwright.

At Coventry, in Gosford-street, Mrs. Morris, much lamented.—In the New

Buildings, Miss Stringer.—Mr. Wm. Eburn.—In St. Nicholas'-place, 73, Mrs. Isa. Cuerton.

At Hockley, 42, Mr. Jos. Ashford.—At Moseley, 20, Miss H. S. Morgan.—At Graisley Green, 19, Miss A. M. Kempson.—At Saltisford, 72, Mrs. Burton.—At Nuneaton, 69, Mr. T. Coleman.

SHROPSHIRE.

An exposure of recent robbery of the poor took place at the late Shrewsbury assizes which ought to be held up *in terrorem*. Edward Beatall and George Willings, the former steward and the latter clerk to the corporation for the management of the poor of Shrewsbury, were convicted of embezzling various sums of money. The amount is stated to be *three thousand pounds!* The indignant judge, Parke, sentenced them to fourteen years' transportation.

Married.] Mr. C. Jones, to Miss A. Owen, both of Oswestry.—The Hon. and Rev. William Nevill, to Miss Caroline Leeke, of Longford-hall.

Died.] At Shrewsbury, Mr. T. Canlin.—At the Priory, 69, Mrs. Smith, widow of the Rev. William Smith, generally and deservedly regretted.—78, Mrs. Bromley, late of the Wyle Cop.—On the Mount, Mrs. Mary Strange.—Mr. Cartwright.

At Bishop's Castle, Miss H. James.

At Ollerton, 51, Mr. J. Pratchett.—At Belle Vue, 74, James Male, esq., an active magistrate, and deputy-lieutenant for this county.—At Kilsall, Miss E. S. Bishton.—At Hopton-rectory, Ann, wife of the Rev. C. Walcot.—At the Old Lea, near Newport, 77, Charles Gilbert, esq.

On Thursday, Sept. 16, after a few hours illness, Thomas Webb, esq., of Kitwell-House, near Halesowen, aged 74. He had for a long time retired from the bustle of public life, to pass the evening of his days in the bosom of his family. For upwards of forty years, he had practised as an eminent attorney in Birmingham, and no man stood higher in his profession, or enjoyed more entirely, the confidence of his townsmen than himself. He was a man of a very superior mind. To his profession he was an ornament, not only as respected his legal knowledge, but as the kind, the patient, disinterested adviser of him who sought his assistance to extricate him from difficulties, disputes and distress. As a literary character, his acquirements were general in almost every branch of science. He was not only a philosopher and a poet, but a good man, and a bright ornament to society. He is now no more, but he will not soon be forgotten; the memory of his many virtues, his warm affection as a parent, his unshaken sincerity as a friend, his upright conduct as a public member of society, will remain indelibly fixed on the hearts of all who knew him, and now deplore his death.

WORCESTERSHIRE.

The 101st Meeting of the choirs of Worcester, Hereford, and Gloucester, took place within the month at Worcester. The amount of each day's collection at the cathedral door, was as follows:

First day, ...	£154	14	6
Second day, ...	368	7	0
Third day, ...	305	10	5½
Total....	£828	11	11½

Being 3*l.* more than the sum collected in 1821.

The newly invented stomach pump was recently used at the Worcester Infirmary with success, in extracting a quantity of laudanum from the stomach.

Married.] George Thomas Turner, esq., of Worcester, to Miss Janetta Pershouse, of Eardington.—James Best, esq., to Eleanor, daughter of the late George Woodyatt, M.D., of Worcester.—Mr. P. Matthews, of Stourbridge, to Miss E. Edwards, of Chaddesley Corbet.—Mr. R. Bateman, of Evesham, to Miss S. Claridge, of Berlingham.

Died.] At Malvern, 73, Lieut.-General Dunn, of Bath.

HEREFORDSHIRE.

Married.] Mr. W. Cooke, of Ledbrooke, to Miss E. Rosser, of Hereford.—James Jukes Frances, esq., of Walford, to Miss M. Price, of Sheep Leasow.—Mr. Godsall, to Miss M. A. Poole, both of Tarrington.

Died.] At Hereford, 80, Hannah, widow of William Milton, esq., generally and deservedly esteemed and regretted.

At Ledbury, 63, James Hurd, esq.—At Little Hereford, Mrs. Price.—At Lyon's-hall, 91, Mr. F. Harper.

GLOUCESTER AND MONMOUTH.

At the late Gloucester assizes, five prisoners received sentence of death; two were ordered for seven years' transportation, and the remainder to imprisonment for different periods.

By the recent death of the widow of the late Mr. Richard Jones of Dursley, the following bequests, in 3 per cent. Consols, under his will are become payable.

Gloucester Infirmary	£250
Bath Hospital	250
For new pewing Dursley Church ..	450
For support of Church Sunday Schools for boys and girls at Dursley.....	600
To the Friendly Society held at the Old Bell in Dursley	250
To four other Friendly Societies, established in Dursley, £150 each....	600
	£2400

The residue of the personal property, after payment of legacies and expenses, is given to the Gloucester Infirmary.

At the last Assizes held at Monmouth, an action was brought by a Mr. Shepherd, an attorney at Usk, to recover from the defendant, overseer of the poor, a penalty of 20*l.* for refusing an inhabitant an inspection of the

the poor's-rate levied by the parish. The Jury found a verdict for the plaintiff for 20*l*.

Married.] John Sidney Farrell, esq., of the Artillery, to Miss M. Baynton, of Clifton.—John Morgan, esq., of Llandovery, to Miss M. Jenkins, of Caerleon. —Lieut. Wm. Bailey, R.N, to Miss H. Ellis, of Berkeley.—Mr. H. S. Ludlow, of Pool-house, Yate, to Miss L. Mitchell, of Joy Cottage, Chippenham.—Mr. W. H. Hankins, of the Green-house, Dymock, to Miss J. Jones, of Alltabella, near Usk.

Died.] At Gloucester, 34, Mr. John Matthews.

At Bristol, in Bishop-street, 83, Susannah, widow of Edw. Watkins, esq., of Alveston.

At Cheltenham, 56, Thomas Tomlins, esq., generally esteemed and regretted.—67, the Hon. Sophia Acheson, sister to the Earl of Gosford.

At Minchinhampton, 73, Richard Whitehead, esq.—At Hartpury, Mary Anne, wife of Major J. Canning, of the East-India Company's service.—At Brockworth, Mr. Baldwyn, suddenly.—At Thornbury, 51, Samuel Parmiter, of Bristol, a member of the Society of Friends.

OXFORDSHIRE.

Married.] Mr. T. Slatter, of Holywell, to Miss R. Davis, of the High-street; Mr. H. Hamlin, to Miss M. Chaundy, of Goat-lane; Mr. J. Smith, to Miss E. Carter, of Holywell; Mr. Giles, to Mrs. Seal: all of Oxford.—Mr. W. Brain, to Miss Bearsley, both of Banbury.—Mr. W. Blake, of Oakenham-farm, Newington, to Mrs. S. Brangwin, of Grove-end, Bucks.

Died.] At Oxford, 75, Mrs. E. Evans, late St. Aldate's.—54, Mr. Benj. Davis.—In St. Ebbe's, 89, Mr. T. Cox.—In the High-street, 47, Mrs. Howse.—In George-lane, 65, Mr. Geo. Andrews, deservedly regretted.

At Woodstock, 26, Mr. Geo. Darke, of Worcester.

At Henley-upon-Thames, Mrs. R. Norton.

At Pyrton, 79, Mr. W. Wiggins, respected.—At Fair Mile Henley, Mrs. Johnson.—At Wheatly, 26, Mr. T. Armbrough. —At South Hinksey, Mrs. J. Hunt, justly regretted.

BUCKINGHAMSHIRE AND BERKSHIRE.

A clerical magistrate of Buckinghamshire, a Mr. Lowndes, lately sentenced to the thread-mill, on pretence of vagrancy, two licensed preachers of the names of Harvey and Ward, of the sect of Baptist Revivalists, who were collecting money for the erection of chapels.

A well, possessing medicinal properties, situate near the extremity of the Long Walk, Windsor, has been lately re-opened by directions of the king—Its taste similar to Cheltenham Spa.

Died.] Mr. J. Dinsdale, to Miss M. Heath; Mr. Geo. Batchelor, to Miss E. Bellingham; all of Buckingham.—Maurice Workman, esq., of Reading, to Miss Soph. Weston, of Wilsley Green, Cranbrook.—Edwin Fardon, to Lydia Whiting, both of Reading, and of the Society of Friends.—Mr. J. Gregory, to Miss M. Keates, both of Abingdon.

Died.] At Aylesbury, 74, Mr. Deacon, justly respected.—50, Mrs. Woodman.

At High Wycombe, 67, Mrs. Priscella Bevan, a member of the Society of Friends.

At Reading, Mrs. Frewen.—Mr. Fulkes, of the Forbury. — In London-street, 71, Mr. Burton.—At Newbury, Mr. J. Stroud.

At West Hendred, 70, Mr. W. Saunders, much and deservedly esteemed.—At Streatley-Mill, Mrs. Child, and Miss Child, her sister, both greatly respected.

HERTFORDSHIRE AND BEDFORDSHIRE.

Nine small tenements held by the poor at Eaton, Bedfordshire, were lately destroyed by fire, together with their contents. A subscription has been opened for relief of the sufferers.

Married.] Mr. R. Oldaker, of Rickmansworth, to Miss Lyd. Lawrence, of Loosely-row, Prince's Risborough.—William Walker, esq., of Berkhampstead, to Miss Charl. Parker, of Treleigh-house.

Died.] At Dunstable, 22, Mr. Chas. Hart, of Woodham, Mortimer-hall, near Maldon.

At Hitchin, 69, William Wilshire, esq., Chairman of the Bedfordshire Quarter Sessions, and a magistrate for Hertfordshire. Mr. Wilshire was an active and independent man, and ever ready to exert himself in the cause of the freedom of the subject.

At Woburn, the Hon. Mrs. Seymour, wife of Henry Seymour, esq.—At Sawbridgeworth, Molly, widow of the Rev. John Lane, late vicar.—At Great Chissall, near Royston, Mrs. Kent.

NORTHAMPTONSHIRE.

Married.] R. T. Scarborough, esq., of Northampton, to Louisa, daughter of the Rev. S P. Harpur, rector of Calthorpe.—The Rev. Wm. Thursby, vicar of All Saints, Northampton, to Miss E. M. Hargreaves, of Ormerod-house, Lancashire.—Mr. Thornton, to Miss A. French, both of Byfield.

Died.] At Northampton, 81, Mrs. A. Cooke.—86, W. Ker, esq. M.D., upwards of sixty years principal medical attendant at the Northampton infirmary.

CAMBRIDGE AND HUNTINGDONSHIRE.

The marble bust of the lamented Dr. E. D. Clarke, by Chantrey, is now placed in the vestibule of the University Library, at Cambridge, among those fine specimens of ancient sculpture which that celebrated traveller brought from Greece.

Married.] John Okes, esq., of Cambridge, to Miss M. E. C. Martin, of Epping.—Mr. J. Smith, of Wisbeach, to Miss M. Breese, of Walsoken.—Mr. C. Wakefield, to Miss M. Bacchus, both of March.—The Rev. — Moore, of Moulton, to Betania, daughter of the late Thomas Tunnard, esq., of Frampton-hall.

Died.

Died.] At Cambridge, in Caius College, 25, Mr. H. Shaw, son of John Shaw, esq., of Gower-street, Bedford Square.

At Ely, at an advanced age, Mrs. Barker, of Bury St. Edmund's.

At Wisbeach, 37, Miss Pope, of Friday Bridge.

At March, 41, Mr. F. Phillips.

NORFOLK.

Married.] Mr. H. J. Balls, of St. Michael at Plea, to Mrs. Shalders, of Norwich.—Mr. J. C. Walne, of Brockdish, to Miss M. Cole, of Surry-street, Norwich.—Mr. W. H. Edwards, of Norwich, to Miss A. Brown, of Godmanchester.—Mr. W. Baker, of Old Backenham, to Miss M. Wade, of St. Stephen's, Norwich.—Mr. R. Richards, of Swardeston, to Miss C. Hays, of Norwich.—At Yarmouth, Mr. J. B. Palmer, to Margaret, daughter of the late Capt. Jones, R.N.—Mr. A. Gissing to Mrs. Everson, both of Stradbrook.—Mr. G. Boult, of Heigham, to Miss M. A. Chambers, of Yarmouth.

Died.] At Norwich, in Stepping-lane, 42, Mr. Jas. B. Sparke.—In St. Edmund's, 33, Miss A. T. Lamb.—In the Castle Ditches, 68, Mrs. Royal.—36, Mr. R. Wilmot, generally and deservedly regretted.—In Chapelfield, 86, James Barnham, esq.

At Yarmouth, 62, Mr. Robt. Pearson.—46, Mrs. E. Cooper.—35, Mr. Robt. Eldridge.—76, Mrs. Cath. Smith.—20, Mrs. S. Curtis.—59, Mr. Pierson.—71, Mr. Ja. Sherring.

At Broom, 84, Mr. Jer. Day.—At Bracondale-hill, Henry Beevor, M.D.—At Lakenham, Miss Hardy, of Norwich.—At Cawston, 48, Mr. J. Ebbetts.—At Felmingham, Mr. T. Newman.

SUFFOLK.

Married.] Mr. R. Smith, jun., to Miss C. Fenton, both of Stowmarket.—Mr. J. Martin, of Beccles, to Miss M. Folkard, of East Bergholt.—Mr. J. Scope, of Needham Market, to Miss E. Ruffell, of Great Baddow.—C. Murray, esq., to Miss Anderson, both of Sudbury.—Mr. B. White, to Miss M. Kerry, both of Eye.—Mr. Jas. Wood, of Great Totham, to Miss E. Bourne, of Munden.

Died.] At Bury, Mr. Newbourne.

At Ipswich, 74, Lieut. Gen. John Prince.—In St. Lawrence, 59, Mr. Rolfe.—In Lady-lane, 43, Mr. Jos. Cabburn.

At Woodbridge, 39, Mr. W. Osborn.

At Bungay, 78, Mrs. Burstal.

At Beccles, 77, the Rev. Bence Bence, rector of Beccles St. Michael and Thorington, and vicar of Beccles St. Mary.—At Wheatacre, Mrs. Sheriffe, wife of the Rev. T. Sheriffe, jun.—At St. Clement's, 49, Mr. Filby.—At Rougham, 70, Mr. J. Blomfield.—At Erisarton, 44, Mrs. Smith.

ESSEX.

A melancholy detail of losses sustained by the dreadful hail storm in Essex, on 14th July last, has been receently published in the *Chelmsford Chronicle*, with the view of inducing benevolent persons to aid the subscription now going forward for the relief of the sufferers. The total loss is stated at 14,827*l* 6*s*. 5*d*.

Married.] Mr. W. O. Clay, to Miss E. Chamberlain; Mr. R. Simpson, to Miss S. Bruce: all of Colchester.—The Rev. P. Sibree, of Wethersfield, to Miss M. Burder, of Finchingfield.—Mr. J. Gurson, of Thaxted, to Miss S. Osborn, of Chatham.

Died.] At Chelmsford, Mr. Geo. Nokes.

At Braintree, 23, Mr. H. Joslin.

At Rayleigh, Mrs. Wink.—At Forest-hall, Birchanger, 61, the Rev. W. Elliott, rector of Mablethorpe, and curate of Henham.

KENT.

The Sittingbourne Bank of the firm of Louth, Burgess and Co. has lately suspended payment.

Married.] Mr. Jas. Stock, to Miss M. A. Ashelby; Mr. Hooker, to Miss C. Robos; Mr. H. Ward, to Miss Harvey; Mr. T. G. Meridith, to Miss A. Pratt: all of Canterbury.—Mr. G. Burgess, of Canterbury, to Miss M. A. Webb, of Fordwich.—Mr. J. Boyton, of Dover, to Miss E. Strong, of Ramsgate.—Mr. W. Young, to Miss Hunt; Mr. S. T. Cripe, to Miss A. Shrubsole; Mr. W. Fullman, to Miss S. Summers; Mr. E. Golding, to Miss C. Foster: all of Chatham.—Samuel Eyles Pierce, esq., of Tonbridge, to Miss Anna Beeching, of Tonbridge Wells.—Mr. J. Westover, of Lenham, to Miss R. Goldsmith, of Chatham.

Died.] At Canterbury, 63, Mr. R. Bax, deservedly regretted.—In St. Dunstan's, 63, Mrs. Solomon.—In Dover-lane, Mrs. Maxted.

At Dover, Mr. W. Green, late of London.—Mr. J. Neale.—Miss R. Beer.—23, Miss Susan, Thompson, generally and deservedly esteemed.

At Rochester, 63, R. Corrall.

At Chatham, 26, Mr. W. Gardener, 74, Mr. T. Hall.—22, Mrs. Worslett.—25, Mrs. E. Cockhead.—80, Mrs. J. Grant.

At Sandwich, Miss M. Westbeech.

At Mersham, Miss M. Birch, generally esteemed.—At Hawkhurst, Mrs. A. Gregson.—At Whitstable, 44, Mrs. J. Scourge.—At Appledore, 92, John Eve, esq., much and deservedly respected.—At South-end, Miss Eliz. Forster.—At Cranbrook, Mrs. King.

SUSSEX.

Married.] Mr. Jas. Gray, to Miss Comper, both of Chichester.—The Rev. A. P. Kelly, of Little Hampton, to Miss Jenkins, of Clewer Villa.

Died.] At Chichester, in North-street, Mrs. Smith.

At Brighton, in Bond-street, Mrs. S. Stone.—74, the Hon. Mrs. Frances Wall.—Two days after his landing at Brighton, from the Mariner, Capt. Charles Young, commander of the Fame, which ship was destroyed by fire at Bencoolen on the 2d of February last.

At Hastings, Gillmore Croft, esq., late an eminent surgeon of London.

At

At West Tarring, 77, Mr. J. Goodyer.—At Bosham, 40, Mr H. Cooke, of Islington, justly regretted.

HAMPSHIRE.

The General Annual meeting of the Portsmouth and Portsea Literary and Philosophical Society, was held within the month, when a very gratifying Report of the proceedings of the last Session was laid before the meeting.

The receipt of the late musical festival in Portsmouth, produced above one thousand pounds.

Married.] Mr. Wansborough, of Weston-super-Mare, to Miss M. C. Shartman, of Southampton.—Edward Kirkpatrick, esq., of Southampton, to Miss S. S. Hughes, of Youngwoods, Isle of Wight.—Mr. S. Griffin, of Portsea, to Mary, daughter of Richard Mosbery, esq., of Portsmouth.

At Alverstoke, Peter Stewart, R.N., to Miss E. Collins, late of Eling.—The Rev. A. Goddard, to Mary Ann, daughter of Capt. G. Barker, R.N.

Died.] At Winchester, in Cheeseshill-street, 85, Mr. Cole, much respected.

At Portsmouth, Mrs. H. Brown, generally respected.—Mr. J. Child, of the Victualling Department.—82, Mr. M. Hart.

At Portsea, Mr. T. Mew.—62, Mrs. E. Bowyer.—62, Mrs. Cooke.—Mr. J. Wier.

At Gosport, 26, Louisa, wife of R. B. Freer, esq., Vet. batt.

At Shirley-house, 72, the Rev. Sir Chas. Rich, Bart.—At Ashlands, at an advanced age, W. Bowles, esq.—At Stoneridge-farm, near Hambledon, Mr. G. Shawyer.—At Sompting, 54, Mrs. E. Upperton.

WILTSHIRE.

Salisbury Musical Festival, was well patronized. The following is a correct account of the number of persons who attended the performances at the Cathedral and the Concert-rooms: first morning, 762; second morning, 1200; third morning, 884; —First evening, 425; second evening, 482; third evening, 642.

Married.] Mr. R. Manning, of Melsham, to Miss J. Hutchins, of Marden.—Mr. Jer. Morgan, to Miss S. W. Provis, both of Warminster.—James Bradford, jun. esq., of Swindon, to Miss A. W. Goddard, of Cliffe-house.—The Rev. Ersk. Neale, of Edington, to Miss M. Fielding.

Died.] At Devizes, Benj. Webbe Anstie, esq.

At Everleigh-house, Lady Astley, wife of Sir J. D. Astley, Bart. M.P. for this county, generally esteemed and lamented.—At Froxfield College, at an advanced age, Mrs. Pettit.—At Ham, 90, Mrs. Elton.

SOMERSETSHIRE.

At the late Somerset Assizes, seven prisoners received sentence of death; three were sentenced to transportation for life; three to seven years, and others to various terms of imprisonment.

Married.] John Maddison, jun. esq. of Green-park buildings, to Miss Georg. Curtis, of Pulteney-street; Mr. Ed. Fitch, to Miss Hiss H. Fielding: all of Bath.—Mr. Jas. Chapman, of Primrose-hill, Weston, to Miss A. Watkins, of Bath.—Mr. Brag, of Taunton, to Miss E. Strode, of Shepton Mallet.—William Bryant, esq., to Miss Mary Mackenzie, of Taunton.—Mr. E. D. Sparks, of Crewkerne, to Miss Thomas, of Thickthorne.—Mr. Pritchard, of Easton Grey, to Miss Saunders, of Milbourn.—Mr. C. Feltham, to Miss Simons, both of Hilperton.

Died.] At Bath, 66, Mr. Skinner, generally respected.—On Kingsmead-terrace, at an advanced age, Mr. Fred. Shum.—In York-street, Mrs. Hen. Palmer, justly lamented.—In Caroline-buildings, Mrs. Hen. Collison.—In Portland-place, 72, W. H. Douce, esq.—In Pulteney-street, Mrs. Anne Sutton, justly esteemed and regretted.

At Bridgwater, Miss K. Way.

At Taunton, 90, Mrs. S. Woodward.—Edward, son of Dr. Hazleton.

At Freshford, 30, Miss H. Lea.—At High Littleton-house, Jacob Mogg, esq., generally respected.—At Kingsdown-house, 72, Catharine, wife of Aaron Moody, esq.

In the Circus, 83, Dr. Falconer. He may be truly said to have been one of the most distinguished ornaments of this city. His extensive stores of profound erudition did honour to the university, from whose fountain they were derived, and gave lustre to Bath, his chosen residence. His professional career was conspicuous for sagacity of investigation, and promptitude of apprehension. His practise displayed zeal, which knew no abatement; assiduity, which made no partial distinction of persons; liberality, which may have moderated his fortune, but will embalm his fame. It has been remarked by those who were enabled to make the comparison, that his manner, and his sententiousness of pithy observation, especially in his later years, bore much resemblance to the familiar style and address of Dr. Johnson. Of Dr. Falconer it may be said peculiarly, Professions have rarely boasted a Practitioner so learned—Learning has rarely produced a Professioner so practically useful. Science is indebted to his pen for many valuable publications.

DORSETSHIRE.

Married.] Mr. Glenister, of Bristol, to Miss Morgan, of Dorchester.—Mr. Chard, of Langport, to Miss J. Taylor, of Shepton Mallet.—At Wareham, Mr. Just. Oxford, to Arethusa, daughter of the late Capt. Ellis, R.N.—Mr. T. Phillips, to Miss N. Hicks, both of Stourton, Caundle.

Died.] At Wareham, 79, Capt. Jas. Ellis, R.N.

At Norton, Fitzpaine, 83, Mr. Bunter.

At Lyme, at an advanced age, Mrs. Tucker, widow of Andrew Tucker, esq. of Chard.

DEVONSHIRE.

At a late meeting held at Plymouth, the Earl of Morley, in the chair. It was re-resolved

solved to erect public Baths under the Hoe.—The buildings will comprize, besides plunge and warm baths, an elegant saloon, with bazaar and a reading room on one side. The principal front of the building, which will be Doric, will face the sea, and the access will be by stone steps.

The sums at present deposited in the Devon and Exeter Savings' Bank, amount to nearly four hundred and thirty thousand pounds.

Married.] W. S. Tucker, esq. to Miss Eliz. Bidwell, of Exeter.—Mr. E. Maynard, to Mrs. Kemp, of Exeter.—Mr. Geo. Hooper, of Exeter, to Miss J. Norgate, of Norwich.—John Mallock, esq. of Axminster, to Miss Charl. Arden, of Exeter.—Mr. Rogers, of Higher-street, to Mrs. Northcott, of Tavistock-street.—Mr. S. Blake, jun. to Miss Johan. Arthur: all of Plymouth.—The Rev. G. Patey, to Miss J. Holman, of Devonport.—The Rev. J. W. Button, of Collompton, to Miss B. B. Kelson, of Farnborough.—At Stoke, Mr. J. Hay, to Miss Lawrence, of Navy-row.

Died.] At Exeter, 70, Mr. J. Ward, much and deservedly respected.—John North Boydell, esq. late lieut. col. of the East London militia.—87, Mr. J. Newton.—Mrs. Taylor.—At Plymouth, 84, the Rev. John Gandy, A.M. the much and justly esteemed vicar of St. Andrews.—At an advanced age, Mr. T. Dunsterville.

At Davenport, Mrs. G. Banks.—In Duke-street, 80, Mrs. Davey.—In Mount-street, 59, Mr. Barker.—At Bideford, Mrs. E. Bartlett.

At Ashburton, 64, Mr. J. Berry.—At Loddeswell, 25, Thomas John Freke Gunston, esq. of Bishop's Hull.—At Thorverton, William Anthony, esq.

CORNWALL.

A meeting of the inhabitants of Falmouth was lately held at the Guildhall, to consider of the propriety of establishing a Classical School there, by public subscription.—E. Carne, esq., the Mayor, in the chair. It was resolved to erect a school-room, engage competent masters, &c., and a committee was formed to carry these objects into effect.

Married.] James Hendy, esq. of Truro, to Miss Porley, of Newlyn.—Mr. R. Martyn, of St. Mabyn, to Miss G. Withiell, of Treworlas.—Mr. T. Courtenay, to Miss Trebilcock, of St. Clement.

Died.] At Falmouth, 39, Mr. H. White, much and deservedly regretted.—Mr. Edwards.—Mr. A. Williams.

At Penzance, Mrs. Hocking.

At Redruth, at an advanced age, Mr. Jas. Jenkin.

At Rosewyn, 75, Mrs. Polyblank.—At Polperro, 98, Mrs. Dor. Bennett.

WALES.

A tremendous storm of thunder occurred in the vicinity of Swansea, on the evening of the 30th of August last, and the rain fell in such torrents, as to occasion tremendous floods in the rivers, which disembogue into Swansey Bay. In many instances the corn which was cut and standing in large cocks on the low lands, was washed down and carried out to sea.

Married.] Mr. S. Tobias, of Tredegar, to Miss S. Moseley, of Neath.—The Rev. D. A. Williams, to Miss F. Charette, both of Carmarthen.—Henry Lawrence, M.D. of Carmarthen, to Jane, daughter of the late D. W. Stephenson, esq. of Sterling-park, Carmarthenshire.—Mr. Evans, to Miss M. James, both of Milford.—George Strong, A.M. of Dyserth, Flintshire, to Miss Bury, of Llanvedr's-hall.—At St. Nicholas, Glamorganshire, Major Mansel, of Iscoed, to Emilia, daughter of Vice-admiral Sir Charles Tylor, K.C.B. of Cotterill.

Died.] At Carmarthen, Mrs. Jones.—22, Mr. J. Lewis.

In the Vale of Neath, 72, Valentine Quin, Earl of Dunraven.—At Clwyedog, near Dolgelly, 74, Mrs. Edwards, widow of Mr. Edwards, of Chester.

SCOTLAND.

Married.] J. Clark, M.D. Physician to the Forces, to Miss Gilchrist, daughter of Dr. Gilchrist, of Dumfries.—At Traparin, East Lothian, James Murray, esq. to Miss Clara Goldie, of Athelstoneford.—George Rennie, jun. esq. of Phantassie, East Lothian, to Jane, daughter of the late John Rennie, esq.

Died.] At Edinburgh, William Calder, esq. Lord Provost.

At Dairice, Fifeshire, 85, the Rev. Robt. M'Culloch, D.D. minister of that parish.—At Blair, in Athol, Lieut. Col. Johnson, late of the 4th regt.

At a late meeting at Glasgow, at which the Duke of Hamilton presided, it was resolved to form a Joint-Stock Company, with a capital of not less than 20,000*l.* to be raised in shares of 50*l.* for the improvement of the Clyde above Glasgow, and to the formation of rail-ways, branching therefrom in various directions.

The Senatus Academicus of the University of Edinburgh, have recently passed a resolution in favour of examining medical candidates for future graduation in the English language.

IRELAND.

A meeting of Bankers and Merchants was lately held at Dublin, to consider the propriety of establishing Steam-Packets between Dublin and London. The design was resolved upon. The original capital of 30,000*l.* has been nearly subscribed, in shares of 50*l.* These Packets will touch at Portsmouth and Falmouth.

Married.] Robert Verschoyl, esq. son of the Bishop of Killala, to Miss Curtis, daughter of Thomas C. esq. of Mountown, county of Meath.

Died.] At Dublin, the Rev. Robt. Pierce Gamble, inspector of gaols in that city.

At Mullingar, John Wright, esq. of the 2d regt. Lancashire militia.